Library
of
Purdue University

Class Book
398.3 D32

# THE BRIDLE OF PEGASUS

BY THE SAME AUTHOR

MAGICIAN AND LEECH

# THE BRIDLE OF PEGASUS

## STUDIES IN MAGIC, MYTHOLOGY AND FOLKLORE

BY

**WARREN R. DAWSON**

F.R.S.E., F.R.S.L., F.S.A. Scot., F.R.A.I.

FELLOW OF THE ROYAL SOCIETY OF MEDICINE
HONORARY RESEARCH ASSISTANT, UNIVERSITY COLLEGE, LONDON
HONORARY LIBRARIAN OF LLOYD'S

METHUEN & CO. LTD.
36 ESSEX STREET W.C.
LONDON

*First Published in 1930*

PRINTED IN GREAT BRITAIN

32 May 35 Blackfriars 1 95

TO

SIR JAMES GEORGE FRAZER

O.M., F.R.S., F.B.A.

FELLOW OF TRINITY COLLEGE, CAMBRIDGE

MEMBRE DE L'INSTITUT DE FRANCE

THIS BOOK IS DEDICATED

# PREFACE

IN this volume are collected eight separate and independent studies of subjects concerning magic, mythology, and folk-lore. Unconnected as they are, however, these studies have one feature in common, for they reveal some of the manifold attempts of early man to control, by divine or magical aid, the forces of nature and to achieve ends that he believed to be necessary to his life and welfare; just as in Greek legend Bellerophon, by the help of the magic bridle put into his hands by Athena, was able to tame and mount Pegasus, the immortal winged steed, by whose aid he defeated the Chimaera. It was out of a primitive belief in magic that medicine and science gradually emerged, although long after the latter had established their independent career their light was dimmed and overclouded by magic and superstition. Out of the belief in magic has arisen the endless series of customs, institutions, myths, legends, and creeds that man has stationed about himself to throw a feeble and often failing light upon his painful efforts to grope a path, shackled by traditions and errors of his own making, through the dense labyrinth that leads by tortuous ways to philosophy and knowledge. From magic grew religion, from religion grew mythology; of mythology, folk-lore and superstition are the degenerate survivors. From the chapters of this book one fact emerges clearly: the obstinate conservatism, the slavish copying by one man from another and by one race from another, the long reign of tradition and precedent that for centuries has been an effective bar to progressive thought.

I have endeavoured, so far as the facilities at my disposal allowed, to give the authority for every fact or expression

of opinion quoted. Great care has therefore been taken in arranging the bibliographical evidence on which my statements rest. Critics of some of my former books have objected to the ' elaboration ' of these references. In this volume, however, they will be found as ' elaborate ' as ever, and for this sin here is my impenitent apology :

It has fallen to my lot during the last twenty years to do an immense amount of bibliographical research, and I shall never cease to regret the wasted hours I have often spent in endeavouring to trace works from inaccurate or incomplete references. It seems to me that the only justification for references in any book is that they should be serviceable to the minority who wish to use them, and should not involve the inquirer in the fresh task of deciphering abbreviations or hunting hither and thither in various parts of the book he is using. Such justification is too often lacking in modern books, and the difficulties of understanding and using over-abbreviated references by one who is unfamiliar with the literature of any special subject cause irritation and waste of time. I have therefore generally quoted all the particulars that are necessary in using the catalogues and requisitioning books in the British Museum or any other large library. A very frequent cause of trouble and delay in tracing books is the habit, still prevalent, of omitting the author's Christian name or initials. Let any one who considers this point trifling endeavour to find a work whose author is given, without initials, merely as ' Brown ', ' Smith ', or any other surname of frequent occurrence, in the catalogue of the library in the British Museum. Such a reference may entail searching fifty pages or more in the catalogue, when the insertion of the author's initials or name would enable the hunter to pounce immediately on his quarry.

I would like to express my indebtedness to Sir James

Frazer for his encouragement and advice. In the matter of bibliographical references I have followed the excellent example set by all his books. I also wish to thank my friend Mr. H. L. Latham who has kindly read the proof-sheets.

W. R. D.

*April 1930*

# CONTENTS


| CHAPTER | | PAGE |
|---|---|---|
| | PREFACE . . . . . | vii |
| I. | THE AMPHIDROMIA RITE . . . . . | 1 |

Plato and Aristophanes mention a custom called Amphidromia—The rite defined by the lexicographers and scholiasts—The day of the rite—The tenth day and the name-feast—Dr. Reinach corrects certain errors of interpretation—The rite performed by a man, not a woman—The man naked—Purpose of the rite believed by some to be purification—Dr. Reinach believes it to be magical to make the child fleet-footed—Certain elements of the rite not accounted for by Dr. Reinach—The gifts of cephalopods—Sir James Frazer's interpretation—Peculiarities of cephalopods—Cephalopods associated with Aphrodite—The gifts bestowed as lucky charms—Possible origin of the *swastika*—Ceremonial running—Running at fire-festivals—Running at the Roman Lupercalia—Plato's reference to the Amphidromia—Magical enemies of children—The belief in theft by demons and changelings—This belief very ancient—Survival of belief in changelings—Such beliefs in Scotland—Fire-ritual to detect changelings and protect children—Similar customs in other lands—The Amphidromia a parallel to such customs

| | | |
|---|---|---|
| II. | HARPIES AND BATS . . . . . | 18 |

The harpies in Greek mythology—The legend of the daughters of Pandareus—Personification of storm-winds—The legend of Phineus—Aeneas and the harpies—The nature of harpies according to ancient writers—Usually supposed to be based on birds of prey—Fabulous animals seen by Alexander in India—'Bats as big as eagles'—Flying-foxes, or fruit-eating bats—Habits of flying-foxes—Their voracity and smell—A modern visitation of harpies—Bats in Greek literature—Vampire-bats

CHAPTER PAGE

—Bats in literature and folk-lore—Aristotle and Pliny—Arabic beliefs in bat-magic—Syriac remedies—Bats in the writings of the School of Salerno —Assyrian legends—Bats in ancient Egypt—In Graeco-Egyptian magic—Bats as souls of the dead—Bats as the life of men—Bat-gods in America and Samoa—Bats as sacred or lucky animals—Bats as ill-omened animals—Children's rhymes—Bats in a Russian creation-legend—Bats in Indian folk-lore—Bats as food—Bats as weather signs—Bats in English folk-medicine and charms

III. A MAN WHO BECAME A GOD . . . . 49

The Egyptians seldom recalled men of old—The dead neglected by the vanity of the living—Inscriptions of self-praise—The real state of the poor in Egypt—Strikes of the workmen—Famous sages: Ptahhotp, Imhotep, Khamwese—Amenophis, the son of Hapu—His birthplace and career —His statues—His official functions—His desire for longevity—A life of fivescore and ten years—Statues of, with oracular inscriptions—Amenophis at the Temple of Soleb—His sarcophagus and its inscriptions—His architectural achievements—Amenophis in old age—Royal permission to place his effigies in the Temple of Karnak—His posthumous fame—The Decree of Amenophis—A pious forgery—Demotic documents—Bas-reliefs in the Theban temples—Amenophis a god of healing—Votive inscriptions—The Sayings of Amenophis —The Seven Wise Men—The legend of Amenophis in the works of Manetho

IV. NOSE-RUBBING AND SALUTATIONS . . . 80

Egyptian evidence not considered by writers on salutations—'Rubbing the face' in the Pyramid Texts—Smelling, an early salutation—Ceremonial salutations of gods and kings—Nose-rubbing in ancient Egypt—Kissing on the mouth—Debased meaning of terms for salutations—Salutation by embrace—Gestures of homage—Salutations to the dead—Joining noses in Polynesia and elsewhere—Various interpretations of the kiss—Many of these too theoretical—Embracing in Tierra del Fuego

CHAPTER PAGE

and elsewhere—Hand-shaking in Africa—Amongst the Greeks and Romans—Various methods of salutation by gesture—The customs of the Ainu of Japan—Weeping as a salutation—Salutation by emblems—Uncovering the head and feet—Salutations derived from ceremonial acts of life-giving—The breath of life: ancient and modern instances—Salutations derived from ceremonies and not from physiological laws

V. MOUSE-EATING . . . . . 101

The mouse used as a medicine in very ancient times—Beliefs in the spontaneous generation of mice—Belief in the conception of mice without sexual intercourse—Actual remains of mice in pre-dynastic Egyptian bodies—Mouse-medicine in the Egyptian papyri—Mouse-medicine in Dioscorides, Pliny, and Galen—In Coptic, Syriac, and Arabic medicine—Medieval beliefs: Hildegard of Bingen, Paracelsus—Later writers: Culpeper, Lemery, Robert James—Modern survivals in England—The Mouse-Apollo—The mouse legend in Herodotus—Interpretations of the myth of Apollo Smintheus—Mice connected with plague—Ceremonial mouse-eating by the Hebrews, Egyptians, and Babylonians—Celtic legend of mouse-eating—Mouse-clans—Biblical mouse-legend—Mice and children's teeth—The mouse-soul—Mice as souls of the dead—The legend of Bishop Hatto—Aristotle and Pliny on mice—Medieval legends—Mice as antidotes for poison

VI. THE LORE OF THE HOOPOE . . . . 126

Appearance and habits of the hoopoe—Depicted in Egyptian tombs—The hoopoe as a hieroglyph—In the Book of the Dead—In Egyptian magical texts—Etymology of the word hoopoe and its synonyms—Legend of Solomon—Arabic stories—The hoopoe in Arabic medicine—In Syriac medicine—Modern superstitions in the East—In classical literature—The myth of Tereus—The story of Procne and Philomela—The hoopoe in the *Birds* of Aristophanes—The hoopoe and the cuckoo—Legend of parental and filial affections—The

CHAPTER PAGE

hoopoe and the herb springwort—Classical and later legends in the medieval Bestiaries—The hoopoe's magic stone—Confusion with the swallow-stone—Survival of belief in magic stones—The hoopoe as a weather prophet—Legends of the sixteenth century—The hoopoe in eighteenth-century medicine

VII. BIRTHWORT: A STUDY IN THE PROGRESS OF MEDICAL BOTANY THROUGH TWENTY-THREE CENTURIES . . . . . 143

Aristolochia or birthwort not known in Egyptian or Assyrian medicine—Mentioned in the Hippocratic Collection—Described by Theophrastus—Nicander of Colophon—Cicero—Celsus—Dioscorides — Pliny — Cassius Felix — Marcellus Empiricus—Paulus Algineta—Syriac texts—Shabbethai Donnolo—A Coptic papyrus—Anglo-Saxon books —Apuleius Barbarus—Macer Floridus—Arabic and Jewish writers—Albertus Magnus—Peter of Abano —Medieval glossaries and medical books—Paracelsus—*The Grete Herball*—*The Lytel Herball* of Anthony Askham — Leonard Mascal — Rembert Dodoens—William Turner—John Gerard—John Parkinson—Nicholas Culpeper—William Ramsay —The Dispensatories: Alleyne, Lemery, Brooks, James—Birthwort in modern pharmacy—The persistence of the classical tradition—The confusion of names

VIII. MUMMY AS A DRUG . . . . . 162

Pliny's description of bitumen or asphalt—Its therapeutic uses—Diodorus Siculus on bitumen—Diodorus and Strabo allege that it was used by the Egyptians for embalming—Dioscorides on asphaltos —Flavius Josephus on the bitumen of the Dead Sea—The word 'mummy' and its origin—The Mummy Mountain in Persia—Bitumen *not* used by the Egyptians for mummies—The word 'mummy' transferred from bitumen to bodies thought to be prepared with it—Avicenna on *mûmia*—Arabic and Jewish writers—Mummy frequent in early medical books—Guy de la Fontaine visits a mummy-dealer—His revelations

CHAPTER PAGE

of the source of supply—Faked mummies—Paré's denunciation of mummy-medicine—The virtues of mummy transferred to dead bodies generally—Mummy-medicines of Paracelsus—John Parkinson on mummy—Nicolas Lemery on mummy—'Mummies' obtained from places other than Egypt—Bodies obtained from Lybia and the Canary Islands—Crollius' 'mummy' made from human flesh—The term later used for any medicated flesh, human or animal—Mummy as a term in cookery—Later medical opinions—Allusions to mummy by Shakespeare, Shirley, and Sir Thomas Browne

BIBLIOGRAPHY OF WORKS QUOTED OR REFERRED TO IN THIS VOLUME . . . . . 175

INDEX . . . . . 197

# THE BRIDLE OF PEGASUS

# THE BRIDLE OF PEGASUS

## CHAPTER I

## THE AMPHIDROMIA RITE

'At the Amphidromicall Feasts, on the fifth day after the Childe was born, presents were sent from friends.'—Sir Thomas Browne, *Garden of Cyrus* (1658).

PLATO and Aristophanes refer incidentally to a custom connected with young children that is called the Amphidromia ('running around'). Neither of these authors gives us any definite explanation of its purpose, nor any very specific details of the manner in which it was performed. Both take it for granted that the word and its significance were familiar to their hearers, from which it must be inferred that the Amphidromia was a contemporary Athenian rite too familiar to call for comment. Thanks, however, to their scholiasts, and to the lexicographers Suidas, Hesychius, and Harpocration, we are not wholly in the dark as to the nature of the ceremony, although modern scholars have interpreted its significance in various ways.

The brief mention of the Amphidromia by Aristophanes gives no hint at all as to its nature and purpose,[1] but the allusion by Plato is more enlightening.[2] Before dealing

[1] Aristophanes, *Lysistrata*, 757. Οὐ τἀμφιδρόμια τῆς κυνῆς αὐτοῦ μενεῖς. For the scholion on this passage, see below, p. 3, *n.* 2. In the comedy, a woman pretends to be in travail. She has a helmet concealed beneath her garments.

[2] Plato, *Theaetetus*, xv, 160E–161A. For the text see below, p. 13, *n.* 1, and for the scholion thereon, p. 3, *n.* 3.

with the latter, it will be convenient first to discuss the definitions of the custom given by the lexicographers and by the scholiasts, and the various ways in which these data have been interpreted by scholars.

Hesychius mentions Amphidromia under two separate headings: these may be rendered as follows:

(i) 'A day dedicated to young children, on which they carried the infant around the hearth, running in a circle, and named it. At the same time those of the household and friends sent gifts.' [1]

(ii) 'Amphidromia is the seventh day after childbirth, on which, carrying the child, they run naked with it around the hearth.' [2]

Suidas' account is similar, but gives some interesting additional details:

'The fifth day they dedicate to the children. On this day the women who have assisted in the birth purify their hands, and running, they carry the infant round the hearth. And the visitors bring gifts, for the most part octopuses and cuttle-fish. On the tenth day they name the child.' [3]

The third lexicographer, Harpocration, speaks of Amphidromia as follows:

'This day is devoted to new-born children, in which they carry the child running around the hearth, and receive from members of the household and from friends octopuses and cuttle-fish.' [4]

[1] M. Schmidt, *Hesychii Alexandrini Lexicon*, Bd. i (Jena, 1858), s.v. Ἀμφιδρόμια, p. 158: ἡμέρα ἀγομένη [ἐπὶ] τοῖς παιδίοις, ἐν ᾗ τὸ βρέφος περὶ τὴν ἑστίαν ἔφερον τρέχοντες κύκλῳ. καὶ ἐπετίθεσαν αὐτῷ ὄνομα, ὅτε ὑπὸ τῶν οἰκείων καὶ φίλων δῶρα ἐπέμπετο.

[2] Ibid., p. 537, s.v.: δρομιάφιον ἦμαρ: ἀμφιδρόμια· ἔστι δὲ ἡμερῶν ἑπτὰ ἀπὸ τῆς γεννήσεως, ἐν ᾗ τὸ βρέφος βαστάζοντες περὶ τὴν ἑστίαν γυμνοὶ τρέχουσι.

[3] G. Bernhardy, *Suidae Lexicon*, Bd. i (Brunswick, 1853), p. 302: Ἀμφιδρόμια. τὴν πέμπτην ἄγουσιν ἐπὶ τοῖς βρέφεσιν, ἐν ᾗ ἀποκαθαίρονται τὰς χεῖρας αἱ συναψάμεναι τῆς μαιώσεως, τὸ δὲ βρέφος περιφέρουσι τὴν ἑστίαν τρέχοντες, καὶ δῶρα πέμπουσιν οἱ προσήκοντες, ὡς ἐπὶ τὸ πλεῖστον πολύποδας καὶ σηπίας. Τῇ δεκάτῃ δὲ τοὔνομα τίθενται.

[4] G. Dindorf, *Harpocrationis Lexicon*, vol. i (Oxford, 1853),

Ephippus, quoted by Athenaeus, refers to the feast of Amphidromia and the name-day of the child as an occasion of high junketing and festivity in the household.[1]

The Scholiast on Aristophanes says:

'Amphidromia is the tenth day from the birth of children, in which they give them their names, running around them as they lie'[2] [i.e. the children lie upon the ground and the elders run round them].

The scholion on Plato closely resembles the definition of Suidas, but with a certain difference to which attention will be called in due course.[3]

It will be noted, in the first place, that the day on which the ceremony was performed is variously stated. Suidas and the scholiast on Plato state that it took place on the fifth day after the birth of the child, Hesychius says the seventh, whilst the scholiast on Aristophanes says the tenth. The tenth day was the name-day, as we have already seen from Suidas, a fact that is amply confirmed by other texts.[4] The tenth day is probably correct, as it

p. 27, s.v.: ἀμφιδρόμια. [Λυσίας ἐν τῷ περὶ τῆς ἀμβλώσεως, εἰ γνήσιος ὁ λόγος]. ἡμέρα τις ἦγετο ἐπὶ τοῖς νεογνοῖς παιδίοις, ἐν ᾗ τὸ βρέφος περὶ τὴν ἑστίαν ἔφερον τρέχοντες καὶ ὑπὸ τῶν οἰκείων καὶ φίλων πολύποδας καὶ σηπίας ἐλάμβανον.

[1] Athenaeus, *Deipnosophistae*, ix, 10, 370c: Ἀμφιδρομίων ὄντων, ἐν οἷς νομίζεται ὀπτᾶν τε τυροῦ Χερρονησίτου τόμους, etc. Cf. Aristophanes, *Birds*, 493, with the scholiast.

[2] H. Stephanus, *Thesaurus Linguae Graecae*, t. i, pt. 2 (Paris, 1831–56), col. 219: Ἀμφιδρόμια δὲ ἡ δεκάτη ἡμέρα τῶν τικτομένων παιδίων, ἐν ᾗ τὰ ὀνόματα αὐτοῖς τιθέασι περιδραμόντες κειμένοις.

[3] I. Bekker, *Scholia in Platonem* (London, 1824), p. 41: ἡμέρα πέμπτη τοῖς βρέφεσιν ἐκ γενέσεως, οὕτω κληθεῖσα παρ' ὅσον ἐν ταύτῃ καθαιρουσι τὰς χεῖρας αἱ συνεφαψάμεναι τῆς μαιώσεως, καὶ τὸ βρέφος περὶ τὴν ἑστίαν φέρουσι τρέχουσαι κύκλῳ, καὶ τοὔνομα τίθενται τούτῳ, δῶρα τε πέμπουσι τῷ παιδίῳ, ὡς ἐπὶ τὸ πλεῖστον πολύποδας καὶ σηπίας, οἵ τε φίλοι καὶ οἰκεῖοι καὶ ἁπλως οἱ προσήκοντες.

[4] Euripides, *Electra*, 1124; Isaeus, *De Pyrrhi Hereditia*, 30; etc.; but Aristotle, *Historia Animalium*, vii, 11, states that as the majority of deaths in infancy occur before the child is seven days old, it is customary to name the child on the seventh day in the belief that it would then have a better chance of survival.

is extremely unlikely that any ceremony connected with infants would be performed during the period following the birth in which women were regarded as impure. It is known that in Greece women were taboo from the time of birth until they had purified themselves on the tenth day,[1] and it is expressly stated by Suidas and by the scholiast on Plato that the women who had assisted at the birth purified themselves before taking part in the rite. Whibley is of opinion that the fifth or the seventh day was appropriated to the Amphidromia, but that the rite was probably usually postponed until the tenth day, on which the name-festival was held.[2]

A very important contribution to a better understanding of the Amphidromia custom was made by Dr. Solomon Reinach in a study that was published in 1899.[3] He effectually disposed of several incorrect notions on the subject that had previously been voiced. In the first place, Fustel de Coulanges [4] affirmed that the Amphidromia ceremony was reserved for boys, as daughters were not regarded as the proper fulfilment of marriage. All the texts, however, use the general term *τὸ βρέφος* or *τὸ παιδίον*, meaning children in general, without any reference to gender. The same author stated that the child was carried by a woman, a view that was, and still is, shared by many other writers. Schoemann stated that the woman performing the ceremony was the child's grandmother, or one

[1] Euripides, *Electra*, 654; *Iphigenia in Tauris*, 382; etc. As to the taboo of women after childbirth, see J. G. Frazer, *The Golden Bough*, 3rd ed., vol. iii (*Taboo and the Perils of the Soul*, London, 1911), pp. 147 sq. In Ancient Egypt women performed a purification ceremony on the fourteenth day after childbirth (*Westcar Papyrus*, 11, 18–19).

[2] Leonard Whibley, *Companion to Greek Studies*, 3rd ed. (Cambridge, 1916), p. 593, § 632.

[3] S. Reinach, 'L'Amphidromie,' *L'Anthropologie*, t. x (Paris, 1899), pp. 661–70, [Reprinted in *Cultes, Mythes et Réligions*, t. i (Paris, 1905), pp. 137–45.]

[4] For the references to the works of this, and of the other authors quoted by Reinach, see his paper loc. cit.

of the women who had assisted at the birth.[1] According to Stengel, the woman was probably the nurse.[2] Saglio [3] plunged still further into error, and stated that the child was carried by two women, a manifest absurdity and entirely without textual warrant.

As Dr. Reinach has pointed out, the error of presuming that the rite was performed by a woman probably arose out of the feminine participle τρέχουσαι, which occurs as an isolated reading in the scholion on Plato, as against τρεχόντες (masc.) in the other texts. As the scholiast had just spoken of the purification of the women who assisted at the birth, he assumed wrongly that the 'running' referred also to them, and he, or his copyists, altered the traditional τρεχόντες into τρέχουσαι. The plurals βαστάζοντες and τρέχοντες are plurals merely expressing the customary nature of the rite, which could only have been performed by one person, for it would be impossible for more than one to carry a single baby at the same time and run in a circle with their burden. Dr. Reinach points out that Hesychius expressly states that the men who performed the ceremony were naked, nakedness being the traditional condition of athletes when in action ; an athlete running would be naked. Hence the child was carried round the hearth by a naked man, which Dr. Reinach gives good reason for believing can be no other than the child's father.

Petersen, who fell into the error of supposing the runners to be women, went further and did violence to grammar

[1] G. F. Schœmann, *Griechische Alterthümer*, 4th ed. (Berlin, 1897–1902), Bd. ii, p. 537.

[2] *Paulys' Real-Encyclopädie der classischen Altertumwissenschaft*, Neue Bearbeitung von Georg Wissowa, Bd. i, Heft 2 (Stuttgart, 1894), col. 1901.

[3] The reference to the work in which Saglio's remarks appear is incorrectly given in Dr. Reinach's paper ; it should be C. Daremburg and E. Saglio, *Dictionnaire des Antiquités grecques et romaines* (Paris, 1877, etc.), s.v. 'Amphidromia'.

by translating Hesychius's γυμνοὶ[1] as *leicht bekleidete Frauen*. Not only does he ignore the masculine termination of γυμνοὶ, but, apparently shocked at the idea of naked women, softens the uncompromising adjective 'naked' into 'lightly clad'.

The essential feature of the rite, then, was *running* in a circle by a man carrying the infant. The race, as all the texts (except the scholion on Aristophanes) agree, was around the hearth (which, of course, was in the centre of the chamber). The carrying of the child around the hearth has been construed by many writers as a ceremony of purification or initiation. Dr. Reinach quotes several authors who hold this opinion, and the names of many others could be added.[2] He holds, however, that no such idea is inherent in the custom: its essential feature, being that of *running*, to his mind precludes the idea of purification by fire, for which he considers no such speed is necessary or expedient. He believes that the rite had for its object the making of the child agile and fleet of foot, and supports this by reference to a number of customs of a similar nature performed for the benefit of children in various European countries. The Amphidromia is, in Dr. Reinach's opinion, an act of sympathetic magic performed by the father for the benefit of his child, and he considers the *couvade* to be analogous in this respect. Even admitting that the Amphidromia may be interpreted as Dr. Reinach suggests, opinions may differ as to whether *couvade* can be explained analogously.[3]

[1] Dr. Reinach quotes Hesychius only s.v. ἀμφιδρόμια. He omits to refer to the second heading (s.v. δρομιάφιον ἦμαρ), in which alone this word occurs.

[2] Such, for instance, as the following: Oscar Seyffert, *Dictionary of Classical Antiquities*, ed. H. Nettleship and J. E. Sandys (London, 1902), p. 27; Leonhard Schmitz in William Smith and others' *Dictionary of Greek and Roman Antiquities*, 3rd ed. (London, 1890), vol. i, p. 105; F. Warre Cornish, *Concise Dictionary of Greek and Roman Antiquities* (London, 1898), p. 30; etc.

[3] The various explanations of the *couvade* that have been advanced are collected and discussed in my *Custom of Couvade* (Manchester, 1929), pp. 70–90, 97–102.

There is much to be said for Dr. Reinach's view of the significance of the Amphidromia, but it may be doubted whether his explanation takes all the factors of the case into account. If, indeed, the father, impersonating in his nakedness an athlete, runs with the child, why is his course around the domestic hearth? If agility or fleetness of foot is the desired boon to confer upon the child, the running would be more appropriately accomplished in an open space—a race-course, a road, or a field—and not within the confined limits of a domestic chamber. Secondly, neither Dr. Reinach nor, so far as the present writer can discover, any other editor has commented upon the curious gifts—octopuses and cuttle-fish [1]—presented to the child on this occasion. The strange nature of these presents, coupled with the fact that the Amphidromia was performed on a fixed day (the fifth, seventh, or tenth, as noted above), seems to imply a religious symbolism of a far more formal character than merely that of making the child swift-footed. If this were the sole object of the rite, it might have been performed at any convenient time, instead of at a set date, either by itself or combined with the important festival of naming the child; nor is the significance of the hearth, or rather of the fire upon the hearth, sufficiently taken into account. Moreover, was fleetness of foot the only benefit a child could desire? One would expect to find the Amphidromia as only one of a long series of customs, each destined to confer upon the infant some desirable quality or attribute, such as beauty, health, bravery, longevity, wisdom, etc.

There is no record of any such regular series of ceremonies performed at a set time, in order to achieve these various ends. Such ceremonies doubtless existed in Greece, as elsewhere, to confer these and other benefits on occasion

[1] They are mentioned by Harpocration, Suidas, and the scholiast on Plato (*vide supra*).

or when some or all of them were especially required by circumstances, but nothing is known of any general or regular rite performed at or before the name-festival, for *all* children, as is implied by the case of the Amphidromia. Just as Dr. Reinach interprets the Amphidromia as conferring fleetness of foot upon the child, so Sir James Frazer suggests a similar purpose in the curious gifts of cephalopods made at the ceremony: 'For the numerous arms, legs, and tentacles of these creatures seem well calculated to strengthen the grip of a baby's hands and to impart the power of toddling to its little toes.' [1]

The octopus and the cuttle-fish are, relatively speaking, rare animals: at least they are animals not easy to obtain, and they would be quite inaccessible in places situated away from the sea-coast. The qualities which Sir James Frazer suggests they are intended to stimulate could be better expressed by other animals, terrestrial in habit and easier to obtain. Marine animals quickly die on being removed from their element, and the octopuses and cuttle-fish bestowed as presents at the Amphidromia ceremony could only have been represented by dead specimens. Nothing can be more limp and lifeless than a dead cephalopod, and less suggestive of grip and activity.[2] It seems, therefore, that the reasons for the choice of these strange gifts must be sought in other directions.

A distinctive property of many cephalopods is their power of secreting an inky fluid which they can eject into the water and thus set up a dense cloud wherewith to conceal their retreat.[3] Whilst this peculiarity was well

[1] J. G. Frazer, *The Golden Bough*, 3rd ed. (London, 1911), vol. i, p. 156. Sir James Frazer quotes the custom from the scholiast on Plato, not in connexion with the Amphidromia, but as an instance of homoeopathic or imitative magic.

[2] The tenacity of the living octopus, however, was recognized in ancient times; cf. Homer, *Odyssey*, v, 432.

[3] S. P. Woodward, *Manual of the Mollusca*, 4th ed. (London, 1890), pp. 157, 164

known to the ancients,[1] it is difficult to see in it any connexion with the symbolic gifts made to children at the Amphidromia festival. Equally inappropriate is another feature of the octopus and its kindred observed by the ancients—their extreme voracity. Cooked cuttle-fish were eaten as dainties in Athens,[2] but the animals brought as offerings by the friends and relations could scarcely have been considered suitable food for a baby of five, seven, or, at most, ten days old.

Probably the cephalopods had a religious or magical significance; and it is likely, moreover, the gifts did not take the form of real cuttle-fishes and octopuses, but of amulets made in the likeness of the animals, or bearing inscribed or carved representations of them. The octopus, the cuttle-fish, and various univalve and bivalve mollusca, were emblems of the goddess Aphrodite, and were associated with her cult.[3] Amulets in the form of these animals would accordingly be regarded as givers of life, health, and good luck. A brilliant and interesting suggestion was made in 1895 by Dr. Frédéric Houssay that the well-known symbol called the *swastika* may have been derived from conventionalized representations of the octopus. Whilst this hypothesis cannot be regarded as fully proven, it offers an explanation of some of the salient attributes of the *swastika* symbol that many other proffered suggestions fail to elucidate or to account for.[4] The widespread use of

[1] Aelian, *De Natura Animalium*, i, 34; Aristophanes, *Acharnians*, 350–1, with the scholiast; Aristotle, *Historia Animalium*, iv, 1; ix, 37; Athenaeus, *Deipnosophistae*, viii, 323c; Dioscorides, *De Materia Medica*, ii, 23; Horapollo, *Hieroglyphica*, ii, 114; Cicero, *De Natura Deorum*, ii, 50; Pliny, *Natural History*, ix, 45.

[2] Aristophanes, *Ecclesiazusae*, 126, 554; *Acharnians*, 1040.

[3] K. Tümpel, 'Die Muschel der Aphrodite', *Philologus*, Bd. 51 (1892), pp. 385 sq.; G. Elliot Smith, *The Evolution of the Dragon* (Manchester, 1919), pp. 165 sq.

[4] F. Houssay, 'Les Théories de la Genèse à Mycènes et le sens zoologique de certains symboles du Culte d'Aphrodite', *Revue Archéologique*, 3e ser., t. xxvi (Paris, 1895), pp. 13 sq. For some interesting comments on this theory and for references to the

the *swastika* as a lucky charm for children may possibly thus find its origin in the Amphidromia ceremonies. It seems probable that some such explanation as has been hinted at above may lie at the root of the custom of offering cephalopods to infants.

It is now necessary to return to Dr. Reinach's interpretation of the Amphidromia ceremony, i.e. that its object was to make the child fleet of foot by the sympathetic magical action of the bearer of the child *running* round the hearth. It must not be forgotten, however, that running was an important feature in many ceremonial rites that are quite unconnected in purpose with fleetness or agility. In many Egyptian sculptures, for instance, that depict the Pharaoh as the officiant in religious rites, the king is represented in the attitude of running.[1] Some few scholars have interpreted this posture as being a ceremonial dance ;[2] the majority, however, see in it a ritual running, or race.[3] Running, and especially running in a circle about some central object, is very frequent in various kinds of ritual, and especially so in fire-festivals. Sir James Frazer has recorded almost countless examples of running or capering around bonfires in the course of the Lenten, Easter, Midsummer, Beltane, and other fire-feasts.[4] It would appear, therefore, that Dr. Reinach is attaching too specific

literature of the *swastika*, see G. Elliot Smith, op. cit., pp. 173 sq., and the relative illustrations.

[1] Examples are numerous. See, for instance, E. Naville, *Deir el Bahari*, pt. iv (London, 1901), pl. 97 ; A. Gayet, *Le Temple de Louxor* (Paris, 1894), pl. 70 ; A. Mariette, *Dendérah : Description générale du Grand Temple* (Paris, 1870–4), vol. ii, pl. 54 ; and cf. G. Bénédite, *Recueil d'Études Égyptologiques dédiées à . . . Jean-François Champollion* (Paris, 1922), pp. 34 sq.

[2] H. Kees, *Der Opfertanz des ägyptens Königs* (Leipsic, 1912) ; E. A. W. Budge, *Osiris and the Egyptian Resurrection*, vol. i (London, 1911), pp. 231 sq.

[3] It is thus construed by (*inter alia*) Erman, Maspero, and Moret.

[4] J. G. Frazer, *The Golden Bough*, 3rd ed., vol. ii, pp. 69, 84, 89 ; vol. vii, pp. 76 sq. ; vol. x, pp. 111, 122, 175 ; and many other instances.

a significance to the running in the Amphidromia ceremony when he postulates that its purpose was, on the principle of sympathetic magic, to impart fleetness of foot to the child. In support of his explanation, Dr. Reinach, as has been already noted, attaches great importance to the nakedness of the runner, who thus performs his part in the guise of an athlete. On the other hand, it must be remembered that only one of the six texts referred to above [1] mentions the nakedness of the runner, whilst they are in general agreement in regard to the other particulars of the rite. Moreover, the Amphidromia is not the only rite in which there was a ceremonial running by naked men. In the ancient Roman festival of the Lupercalia, a ceremonial running in a circle by naked men was an essential part of the rite.[2] Ovid believed this rite to have been introduced from Arcadia into Italy by Evander.[3] Pan was worshipped especially by the Arcadians, and when the Lupercalia ceremonies were transferred to Italy, they were associated with Faunus, the local counterpart of that god. Ovid explains at length why the officiants in the rite (the Luperci) ran naked, and he explains it by relating a Greek myth of Faunus (Pan) and Omphale. Hercules and Omphale were walking in company when Faunus espied the damsel and fell violently in love with her. The two lovers passed into a cave, where they exchanged garments, the maiden donning the tawny lion-skin of Hercules, whilst he arrayed himself in the soft draperies of the girl. Having done this, they lay down to sleep on two couches, and Faunus, in the darkness of the night, stole into the cave with the intention of seducing Omphale. Groping his way in the darkness, he reached one of the

[1] i.e., the scholia on Aristophanes and Plato, and the definitions of the lexicographers Hesychius (two), Harpocration, and Suidas.

[2] Ovid, *Fasti*, ii, 262 sq.

[3] Ibid., ii, 281 sq., with Sir James Frazer's note (*The Fasti of Ovid*, vol. ii, p. 359).

couches, and feeling the rough lion-skin spread over one of the sleepers he concluded that the wearer was Hercules and passed to the other couch, where his fingers felt the soft texture of Omphale's robes. Believing that he had found the object of his quest, he forthwith attempted his premeditated violation, but Hercules awoke, and the intruder was ignominiously ejected. Such is the story related by Ovid 'to explain why Faunus should particularly eschew the use of drapery' by his devotees.[1] To this explanation of the nakedness of the Luperci, Ovid adds another, drawn from Latin mythology. Romulus and Remus, stripped as athletes, were exercising themselves in sports and contests when an alarm was given that robbers were driving away their flocks. Without waiting to dress or to arm, the youths ran off, just as they were, to recover their stolen herds, and Remus overtook the robbers and regained their booty. 'The fame of the deed endures: they ran stripped, and the success of that day enjoys a lasting fame.'[2]

The nakedness of the runner in the Amphidromia rite, therefore, cannot be regarded as peculiar to that ceremony: both the running and the nakedness were features of many different rites.

Although quoting the scholion on Plato, Dr. Reinach does not mention the words of the text itself that called forth the scholiast's comments. This must now be considered, for although in Plato's dialogue Socrates is speaking metaphorically of a doctrine as a child, the words used may perhaps give a hint as to the real significance of the Amphidromia ceremony. The passage in question is as follows:

[1] Ovid, *Fasti*, ii, 302 sq.

[2] Ibid., ii, 359–80. The same story is related by other writers; see Sir James Frazer's note (op. cit., vol. ii, p. 365). On the whole festival of Lupercalia and its significance, see his illuminating commentary (vol. ii, pp. 327–56).

'Then this is the child, however he may turn out, which you and I have with difficulty brought into the world. And now that he is born, we must run round the hearth with him, and see whether he is worth rearing, or is only a wind-egg and a sham.' [1]

Even making allowance for the metaphor, the idea expressed by this passage is clearly not in any way concerned with fleetness of foot, but is rather a test, or ordeal, to ascertain the very reality or otherwise of the infant. There is a widespread belief that long survived in Western Europe, and perhaps longer than anywhere else in Scotland, that a baby before its baptism, or at any rate during the first few days of its existence, was liable to be stolen from its cradle by fairies, demons, or witches, who substituted a spurious or weakly changeling for the infant they had stolen. This belief seems to afford a close parallel to the explanation of the Amphidromia put into the mouth of Socrates by Plato in his discourse. The text plainly says that the purpose of the ceremony was to ascertain whether in fact the baby was a real baby, fit to be reared, or a mere sham.[2] Some examples of the belief in changelings will throw light on this explanation.

The belief is extremely ancient that new-born babies were especially liable to fall a prey to hostile demons. In Egypt, special incantations and spells were used for the

[1] B. Jowett, *The Dialogues of Plato*, vol. iv (Oxford, 1892), p. 216. The Greek text reads as follows (Plato, *Theaetetus*, xv, 160E–161A): *τοῦτο μὲν δή, ὡς ἔοικεν, μόλις ποτὲ ἐγενήσαμεν, ὅτι δή ποτὲ τυγχάνει ὄν. μετὰ δὲ τὸν τόκον τὰ ἀμφιδρόμια αὐτοῦ ὡς ἀληθῶς ἐν κύκλῳ περιθρεκτέον τῷ λόγῳ, σκοπουμένους μὴ λάθῃ ἡμᾶς οὐκ ἄξιον ὂν τρ. φῆς το γιγόμενον, ἀλλὰ ἀνεμαῖόν τε καὶ ψεῦδος.*

[2] According to Aelian (*De Nat. Anim.*, ii, 26) the eagle submitted its brood to a test to find out if they were indeed true eagles, worthy of being reared. The nestlings were exposed to the fierce rays of the sun, and if any of them so much as blinked an eye, they were cast out of the nest. But if they faced the 'heavenly fire' (*πῦρ το οὐράνιον*) without flinching, they were regarded as worthy members of the eagle tribe.

protection of new-born infants ; [1] similar charms were employed by the Assyrians, Babylonians, and Hebrews.[2] Many of these spells were specifically framed to deter the demon from stealing the child. In an Egyptian spell the following words are uttered by the magician, who thus addresses the demon : ' Dost thou come to kiss this child ? I suffer thee not to kiss him. Dost thou come to soothe him ? I suffer thee not to soothe him. Dost thou come to harm him ? I suffer thee not to harm him. Dost thou come to carry him off ? I suffer thee not to carry him off.' [3] It is not necessary to give instances of the prevalent belief in the danger of witches or demons stealing children in Europe in later times : innumerable cases could be quoted, but these are familiar to students of folk-lore. Of the later survivals of the belief, the Highlands of Scotland afford many instances. Thomas Pennant, who made several journeys to Scotland in the second half of the eighteenth century, has recorded that children were carefully watched till the christening was over, lest they should be stolen or changed by the fairies.[4] ' In place of the infant, when it was carried away, was deposited an unthriving misshapen fairy brat. Soon it revealed itself for what it was. Peevish, always crying and complaining, beginning to show many deformities, dwining, the parents began to realize that it was no child of theirs. Their child had been stolen. This was a fairy changeling.' [5] There

[1] *Berlin Papyrus No. 3027* ; cf. Adolf Erman, *Zaubersprüche für Mutter und Kind* (Berlin, 1901) ; G. Maspero, *Causeries d'Egypte* (Paris, 1907), pp. 229 sq. ; *Études de Mythologie*, t. viii (Paris, 1916), pp. 159 sq.

[2] R. Campbell Thompson, *Semitic Magic* (London, 1908), pp. 41, 136 ; M. Gaster, *Proceedings of the Society of Biblical Archaeology*, vol. xxii (London, 1900), p. 340 ; etc.

[3] *Berlin Papyrus No. 3027*, 2, 1–3.

[4] John Brand, *Observations on the Popular Antiquities of Great Britain*, ed. Sir Henry Ellis (London, 1849), vol. ii, p. 73.

[5] J. M. McPherson, *Primitive Beliefs in the North-East of Scotland* (London, 1929), p. 101.

were various methods of dealing with the situation, and among them was the trial by fire. 'The hearth was piled with peat, soon there was a blazing fire, the suspected changeling was placed as near it as possible without being scorched, or it was hung on the crook over the fire. If it was a fairy child, it made its escape by the lum. This resembles the Danish rite, where the mother heated her oven very hot and said loud enough for the troll folk to hear, "I am going to burn my child." These words she repeated three times, and made preparations to carry out her purpose. Then the subterranean woman rushed in and rescued her brat, returning the human babe.'[1] An ordeal by fire took place as recently as 1845, when a girl was placed in a basket of shavings and hung over the fire. Although the shavings caught fire, the child was uninjured.[2] According to another Scottish custom, the child, immediately after baptism was passed three or four times over a flame, the formula 'Let the flame consume thee now or never', being repeated three times.[3] Borlase states that in the Western Islands 'the same lustration, by carrying of fire, is performed round about women after child-bearing, and about children before they are christened, as an effectual means to preserve both the mother and infant from the power of evil spirits.'[4] It was a Scandinavian custom, observed until recent times, never to let the fire out until a child is baptized, lest the trolls should steal the infant,[5] and the same idea accounts for the German custom of keeping a light burning in the lying-in room until the

[1] J. M. McPherson, op. cit., p. 102; cf. Walter Gregor, *Notes on the Folk-Lore of North-East Scotland* (London, 1881), p. 8; B. Thorpe, *Northern Mythology* (London, 1851), vol. ii, p. 175.

[2] J. M. McPherson, op. cit. (p. 14, *n.* 5), p. 103; C. Rogers, *Social Life in Scotland* (Edinburgh, 1884–6), vol. iii, p. 329.

[3] John Brand, *Popular Antiquities* p. 77.

[4] Ibid., op. cit., p. 78.

[5] E. B. Tylor, *Primitive Culture*, 2nd ed. (London, 1873), vol. ii, p. 195.

child is baptized.[1] There was apparently an analogous custom in ancient Rome. The goddess Juno Lucina was protectress of mothers and their new-born babies. She had a temple at Mount Cespius on the Esquiline Hill,[2] and elaborate ceremonies were connected with her cult, and pregnant women were wont to pray to her.[3] She was a moon-goddess, and, like other moon-goddesses, was a patroness of women, the periodicity of the latter being connected with the regular lunar phases. Her name Lucina was derived from *lux*, 'light',[4] and lights were carried at her ceremonies. The use of these torches or candles gave the goddess her later title, Candelifera.[5]

There is no need to multiply instances of these customs.[6] The underlying notion is plain enough: demons were an especial danger to infants, especially before their baptism; and a ritual, variously performed, was carried out to protect the child from evil influence or to ascertain that it had not been bewitched or was a changeling.[7] From

[1] F. Liebrecht, *Zeitschrift für Ethnologie*, Bd. v (Berlin, 1873), p. 99.

[2] Ovid, *Fasti*, ii, 435 sq., with Sir James Frazer's note (*The Fasti of Ovid* [London, 1929], vol, ii, pp. 383 sq.).

[3] Cicero, *De Natura Deorum*, ii, 27, 68; Horace, *Epodes*, v, 5, *Carmen Saeculare*, 13; Terence, *Andria*, 473; Ovid, *Fasti*, ii, 451.

[4] Ovid, *Fasti*, iii, 255; Frazer, op. cit., vol. iii, p. 60; cf. vol. ii, p. 388.

[5] Tertullian, *Ad Nationes*, ii, 11; cf. *Paulys' Real-Encyclopädie*, Bd. iii (1899), col. 1464: 'Ihre Existenz erklärt sich also aus der Sitte, bei Entbindungen Kerzen (candelae) anzuzünden, sei es um die Nähe der die Geburt fördernden Lichtgöttin Iuno Lucina anzudeuten sei es um Mutter und Kind von den im Dunkeln schwärmenden Dämonen zu schützen.'

[6] A large and interesting collection, with references, of fire ceremonies for the protection of infants will be found in Sir James Frazer's *Apollodorus* (London, 1921), vol. ii, pp. 311 sq.

[7] It is interesting to note that in 1699 a 'changeling child' was exhibited at Bartholomew Fair, Smithfield, London. It is thus described in a contemporary print: 'To be seen next door to the Black Raven in West Smithfield, being a living skeleton, taken by a Venetian galley from a Turkish vessel in the Archipelago: This is a fairy child, suppos'd to be born of Hungarian parents, but chang'd in the nursing, aged nine years and more, not exceeding a foot and a half high. The legs, thighs, and arms are so very small,

such indications as the texts afford of the Greek rite of the Amphidromia, it appears probable, in the light of the material here brought together, that it was a custom of exactly the same kind. A ritual running with the child around the fire, together with the gifts of lucky charms, performed at or before the naming-day, offers a complete parallel to the customs that have survived in more recent folk-lore concerning the magical means taken to safeguard the child from the supernatural foes that were believed to threaten its existence during its first few days of life.

that they scarce exceed the bigness of a man's thumb, and the face no bigger than the palm of one's hand; and seems so grave and solid, as if it were threescore years old. You may see the whole anatomy of its body by setting it against the sun. It never speaks, and when passion moves it, it cries like a cat. It has no teeth, but is the most voracious and hungry creature in the world, devouring more victuals than the stoutest man in England.'—R. Chambers, *The Book of Days* (London and Edinburgh, n.d. [1862–4]), vol. ii, p. 450.

CHAPTER II

## HARPIES AND BATS

'Virginei volucrum voltus, foedissima ventris
Proluvies, uncaeque manus, et pallida semper
Ora fame.'—Virgil, *Aeneid*, iii, 216–18.

THE harpies are familiar figures in Greek mythology, strange winged creatures whose function was to snatch away and carry off those whose disappearance was desired by the gods. According to Apollodorus, Thaumas, a son of Sea and Earth, wedded Electra, a daughter of Ocean, and by her had three daughters: Iris and the harpies, Aello and Ocypete.[1] Hesiod ascribes to the harpies the same parentage, and describes them as winged goddesses with flowing locks, flying in the air as swiftly as the winds and the birds,[2] but by Aeschylus they are represented as ugly and misshapen monsters.[3] In art they are represented as winged human beings, or as birds with human heads. On an Attic vase of the seventh century B.C. two harpies are depicted. They are represented as clothed female figures with birds' wings.[4] In the celebrated 'Harpy Tomb' from Lycia, now in the British Museum, the harpies appear as birds with human heads and arms.

In the earlier texts the harpies appear to be personifications of the storm-winds. Homer mentions the legend of the daughters of Pandareus, beautiful girls who after

[1] Apollodorus, i, 2, 6.
[2] Hesiod, *Theogony*, 265 sq.
[3] Aeschylus, *Eumenides*, 50.
[4] *Encyclopaedia Britannica*, 11th ed., art., 'Greek Art', vol. xii, p. 477, fig. 14. The picture bears the legend ΑΡΕΠΥΙΑ (*ἀρέπυια*, the earlier form of the later *ἄρπυια*). The word 'harpy' means 'snatcher'.

the death of their parents were nurtured and educated by Aphrodite, Hera, and Artemis.[1] While their guardian goddesses had gone to entreat Zeus to find husbands for the girls, 'the Harpies snatched away the maidens and gave them to the Erinyes (Furies)'.[2] A few verses earlier it is said that 'the storm-winds carried off the daughters of Pandareus'.[3] Here the personification is clearly expressed: the harpies and the storm-winds were synonymous. Similarly, Telemachus in search of his father Ulysses says, 'But now the Harpies have snatched him away ingloriously: he is gone, unseen and unheard of,'[4] and the same expression is used by Eumaeus.[5] In the *Iliad*, reference is made to the swift horses Zanthus and Balius, which kept pace with the winds: 'Them the Harpy Podarge bore to Zephyrus.'[6] The immortal steeds of Achilles, themselves fleet as the winds, were thus the offspring of two wind-gods.

The most famous legend connected with the harpies is that of Phineus, the blind king of Thrace.[7] Phineus was punished with blindness by the gods for his ill-treatment of his sons by his first wife, according to some authorities, or, according to others, because, being endowed with the gift of prophecy, he had abused his privilege by revealing the secrets of the future to mankind. In addition to his blindness he was plagued by the harpies, who swooped down upon him whenever he sat to eat, snatched the food from his mouth, and befouled all that they did not carry away. And they poured forth over all so loathsome a stench that no one could approach the place. On the arrival of the Argonauts, Phineus promised to assist them

[1] Homer, *Odyssey*, xx, 66 sq.; Pausanias, x, 30, 1.
[2] *Odyssey*, xx, 77. [3] Ibid., 66.
[4] Ibid., i, 241. [5] Ibid., xiv, 371. [6] *Iliad*, xvi, 148 sq.
[7] The story is told by Apollodorus, i, 9, 21; Apollonius Rhodius, *Argonautica*, ii, 176 sq.; Valerius Flaccus, *Argonautica*, iv, 422 sq.; Diodorus Siculus, iv, 43, gives a different version of the story and omits all reference to the harpies.

by revealing the future course of their voyage and the dangers that lay ahead of them, if they would deliver him from the harpies. Accordingly Calais and Zetes, winged men and sons of Boreas, prepared a meal for the aged Phineus, and stood near with drawn swords to attack the harpies when they should arrive. Scarcely had the seer begun his feast when the harpies swooped down, and greedily devoured the food, but the sons of Boreas attacked them, and they sped away, closely pursued by their antagonists. Calais and Zetes were about to set upon the harpies, having overtaken them at the Floating Islands, when Iris, their sister, intervened, and gave a pledge that the harpies should no more molest Phineus. Such is the outline of the story according to Apollonius Rhodius, but other narratives have some variations of detail. Apollodorus states that during their flight one of the harpies fell into the River Tigris in the Peloponnese, the river being re-named Harpys after her. The other fled to Propontis, to the Echinadian Islands, that were later called Strophades after her, for there she turned about and fell from sheer exhaustion.

The earlier texts name only three harpies: Aello and Ocypete, daughters of Thaumas and Electra, and Podarge, the wife of Zephyrus. Virgil's account, although only one, Celaeno, is named, implies that the harpies were numerous. Aeneas describes how on his arrival at the Strophades Islands he and his companions prepared a goodly feast, whereupon the harpies swooped down and plundered the victuals, befouling the tables and spreading a noisome stench. The banquet was moved and laid out under the shelter of a cave, but again the monsters appeared, and Aeneas and his comrades seized arms and declared war on the fell race.[1] The harpies were invulnerable, and escaped

[1] Virgil, *Aeneid*, iii, 234–5 : ' Sociis tunc, arma capessant | edico, et dira bellum cum gente gerendum.'

unhurt, whilst Celaeno, their leader, upbraids Aeneas for his attack.[1]

The harpies, as they occur in the works of Homer and the earlier writers, are fierce and terrible, but there is there no hint of the loathsome habits attributed to them by Apollonius Rhodius and those that came after him. Apollodorus calls them 'winged females';[2] Apollonius gives no description of them, except that they had great beaks or jaws.[3] Virgil speaks of the harpies as birds (*volucres*), and says: 'They are birds with the faces of maidens, most loathsome are their droppings, they have talons on their hands and their faces are ever gaunt with hunger.'[4] Hyginus describes them as having the heads and wings of birds, human arms, the white breasts of women, and great clawed feet,[5] whilst Tzetzes says they have the bodies of vultures, the ears of bears, and the faces of maidens.[6] Other writers describe them simply as birds,[7] or as rapacious animals.[8] Ovid seems to have regarded the harpies as birds that had once been women, for he states that the *striges*, or screech-owls, greedy birds that tear the flesh and suck the blood of children, which they snatch from their cradles, were originally women transformed by spells into birds, and that they are descended from the birds that cheated Phineas of his food.[9]

[1] *Aeneid*, iii, 209–76.

[2] Apollodorus, i, 9, 21 : πτερωταὶ δὲ ἦσαν αὗται.

[3] Apollonius Rhodius, *Argonautica*, ii, 188–9 : ἁρπυῖαι στόματος χειρῶν τ' ἀπὸ γαμφηλῆσιν | συνεχέως ἥρπαζον.

[4] Virgil, *Aeneid*, iii, 216–18 : 'Virginei volucrum voltus, foedissima ventris | proluvies, uncaeque manus, et pallida semper | ora fame.'

[5] Hyginus, *Fabulae*, 14 : 'Hae fuisse dicuntur capitibus gallinaceis, pennatae, alasqne et brachia humana inguibus magnis pedibusque gallinaceae, pectus album faeminaque humana.'

[6] Tzetzes, *Scholiast on Lycophron*, 653 : τὰ κάτω μέρη ὀρνίθων εἶχον ὦτα ἄρκτων, σώματα γυπῶν, πρόσωπα χορῶν ἔχουσαι.

[7] Scholiast on Apollonius Rhodius, ii, 1089.

[8] Scholiast on Aristophanes, *Peace*, 811 : ἅρπυια γὰρ ἁρπακτινόν ζῷον.

[9] Ovid, *Fasti*, vi, 131–43. For other references to the harpies, see Pausanias, iii, 18, 15; v, 17, 4; Aeschylus, Frag. 245, 260 (ed.

No one of these accounts is sufficiently specific to enable us to describe the harpies as the ancients pictured them : writers and commentators alike seem to have given free play to their fancies. It is generally assumed by modern writers [1] that the harpies, as they appear in the Phineus and Aeneas stories, are modelled upon carrion-feeding birds. All the ancient writers from Apollonius Rhodius onwards agree that they were winged creatures, not only ravenous and ugly, but so filthy in their habits that such food as they did not devour was rendered loathsome by their pollutions. It seems unlikely, however, that birds of prey can have been the prototype of these monsters. Carrion-eating birds would find nothing attractive in the ordinary human diet of Phineus' table, probably consisting mainly of fruit and vegetables, nor in the well-cooked viands of Aeneas and his men. Moreover, such birds, though by no means pleasant in their habits, do not so utterly befoul their surroundings as to make the aspect and the stench of the neighbourhood insupportable. In place of the birds of prey, I have another suggestion to offer as to the probable origin of, or the model that inspired, the harpies as described by Apollonius and his successors, however much it may have been modified by poetic fancy.

Apollonius was an Alexandrian ; he lived after the time of Alexander himself, but during a period when Alexander's exploits were still a leading topic of writers, poets, and story-tellers. Those who accompanied Alexander to India brought back with them wonderful stories, growing daily more marvellous in the telling, of the strange beasts and

A. Nauck, 2nd ed. [Paris, 1889], pp. 78, 83) ; Pisander, Frag. 14 (ed. F. Dübner, Paris, 1840) ; Servius on Virgil, *Aeneid*, iii, 241 ; Ovid, *Metamorphoses*, vii, 4 ; Hesychius, s.v. ἅρπυια ; Seneca, *Medea*, 781–2 ; Lactantius Placidus on Statius, viii, 255.

[1] e.g. by H. J. Rose, *Handbook of Greek Mythology* (London, 1928), p. 29.

monsters encountered by them in the course of their travels. Now, many of the marvellous beasts described in the narrative of Pseudo-Callisthenes, although they are rendered grotesque by exaggeration, can often be traced to real, if more modest, prototypes. Consequently when it is stated that 'we saw bats which were as big as eagles, and their teeth were like those of men',[1] the statement need not be brushed aside as a pure fabrication, for there is a perfectly rational basis for it. The Greeks knew no other bats than the small insectivorous genera of the family *Vespertilionidae* inhabiting such parts of Europe, nearer Asia and north Africa, as then constituted the limits of their world. In India, on the other hand, besides the small and inconspicuous little insect-eating bats, there exist many species of much larger fruit-eating bats belonging to a different family, the *Pteropodidae* of zoologists. The species of the latter family are, with few exceptions, very much larger in size than the insectivorous bats; one species, *Pteropus edulis*, inhabiting Java, measures no less than five feet across the fully extended wings,[2] and many species of this genus are not greatly inferior in size, the corresponding measurement being from three to four feet. Now a bat with a wing-span even of three feet would look extremely large to an observer who had never seen one exceeding eight to twelve inches across the wings; and the measurement of three feet, which applies to the common fruit-eating bat of India, the *kalong* or flying-fox (*Pteropus medius*), could easily, and almost naturally, form the basis of a traveller's story of bats as big as eagles.

The large bats of the East made a great impression on early travellers from Europe. Marco Polo saw in India

[1] *Pseudo-Callisthenes* (Greek text), iii, 17; (Syriac text), iii, 7; E. A. W. Budge, *The History of Alexander the Great* (Cambridge, 1889), p. 98.

[2] W. H. Flower and R. Lydekker, *An Introduction to the Study of Mammals, Living and Extinct* (London, 1891), p. 651.

' bats as large as vultures ',[1] and in Australia one of Captain Cook's seamen in 1770 believed he had seen the devil. ' " He was large," says he, " as a one gallon keg and very like it ; he had horns and wings, yet he crept so slowly through the grass, that if I had not been afeared, I might have touched him." It appeared afterwards that this poor fellow had seen a bat, which is almost black, and as large as a partridge ; and his own apprehension had furnished the devil with horns.' [2]

There are many reliable accounts by modern observers of the habits of the fruit-eating bats of India, and of their allies in other parts of Asia, Indonesia, Australia, and Polynesia : all are similar in their general mode of life. Of the common species of India (*Pteropus medius*), Dr. G. E. Dobson wrote as follows : ' Whenever fruit is abundant throughout the Indian peninsula (south of the Punjab), this species, the " Flying Fox " of Europeans, is to be found. A colony, consisting of many hundreds of individuals, is often found inhabiting a single large tree, which is so covered that the animals, hanging head downwards, wrapped up in their wings, resemble large, dark-coloured leaves. I have often been able to detect their presence on trees at night by the strong musky odour evolved from their bodies, which fills the motionless air, and which is probably due to the secretions of the shoulder-glands. Mr. Francis Day, who has had the opportunity of observing the habits of this species for many years, remarks :[3] " In their diet they are exclusively frugivorous ; and they do very great injury to coco-nut plantations and mangoe gardens. Their habits are very intemperate ; and they often pass the night drinking the toddy from the chatties

[1] *The Travels of Marco Polo the Venetian*, Everyman's Library ed. (London, n.d.), p. 362.

[2] *Captain Cook's Voyages*, Everyman's Library ed. (London, n.d.), p. 80.

[3] [F. Day, *Land of the Permauls* (Madras, 1863), p. 439.]

in the cocoa-nut trees, which results either in returning home in the early morning in a state of extreme and riotous intoxication, or in being found the next day at the foot of the trees sleeping off the effects of their midnight debauch. The wild almond (*Terminalia catappa*), when in fruit, is one of their favourite resorts at night-time ; they sometimes carry off the almonds into the verandas of houses, where they extract the kernels, and in so doing frighten nervous people into the belief that robbers are endeavouring to effect an entrance. They are also very partial to wild figs." '[1]

Dr. Dobson has written an interesting note of a smaller species of fruit-eating bat that is common in India (*Cynopterus marginatus*), and this reveals clearly the extreme voracity of these animals, and also the extent to which, by excessive defaecation, they can foul the place in which they feed. ' This Bat,' says Dr. Dobson, ' is very common in India, and extremely destructive to fruit of all kinds, especially to guavas, plantains, and mangoes. To a specimen of this Bat, obtained by me at Calcutta, uninjured, I gave a ripe banana, which, with the skin removed, weighed exactly two ounces. The animal immediately, as if famished with hunger, fell upon the fruit, seizing it between the thumbs and the index fingers, and took large mouthfuls of it, opening the mouth to the fullest extent with extreme voracity. In the space of three hours, the whole fruit was consumed. Next morning the Bat was killed, and found to weigh one ounce, half the weight of the food eaten in three hours ! Indeed, the animal when eating seemed to be a kind of living mill, the food passing from it almost as fast as devoured, and apparently unaltered, eating being performed alone for the sake of the pleasure of eating. This will give some idea of the amount of

[1] G. E. Dobson, *Monograph of the Asiatic Chiroptera* (London, 1876), p. 20.

destruction these Bats are capable of producing among ripe fruits.' [1] Of this species another observer has written : ' In Nipal this Bat is a perfect pest, from the havoc it makes among the ripe pears and guavas. Mr. Hodgson says they are only seen in Nipal about midnight, when they come to feed from very considerable distances. In the plains it is noted of them that they will travel from thirty to forty miles, and as many back, in the course of a single night, in order to procure food.' [2]

Writing of an Australian species (*Pteropus conspicillatus*), Macgillivray relates : ' On the wooded slope of a hill on Fitzroy Island I one day fell in with this Bat in prodigious numbers, looking while flying in the bright sunshine (so unusual for a nocturnal animal) like a large flock of rooks. On close approach a strong musky odour became apparent, and a loud incessant chattering was heard. Many of the branches were bending under their load of Bats, some in a state of inactivity, suspended by their hind claws, others scrambling along among the boughs, and taking to wing when disturbed.' [3]

The present writer's father, who resided for many years in India, once related to him how an open-air social function near Ootakamund, Madras, was spoiled by the flying-foxes. A garden fête of some kind was being held to which a considerable number of children had been invited. Tables were spread in the open with a supper consisting of sweetmeats, jellies, fruit, and similar fare of the kind usual on such occasions. Some time before evening, however, when the party was engaged in another part of the grounds, a large flock of flying-foxes that had been concealed in the

[1] G. E. Dobson, *Monograph of the Asiatic Chiroptera*, p. 25.
[2] Thomas Hutton, ' On the Bats of the North-Western Himalayas ', *Proceedings of the Zoological Society of London*, 1872, p. 693.
[3] W. H. Flower and R. Lydekker, *An Introduction to the Study of Mammals, Living and Extinct* (London, 1891), p. 651 ; cf. Baldwin Spencer, *Wanderings in Wild Australia* (London, 1928), vol. ii, p. 900.

neighbouring trees, took wing and swooped down upon the supper-tables, greedily devouring the dainties and fruit and befouling the white tablecloths to an almost incredible degree. When, just before the time appointed for the supper, one of the hosts approached the tables to see if all was ready, his eyes were met with a scene of filth and defilement and his nose by an insupportable stench of the bats and their droppings. By the time this discovery had been made, most of the marauders were gorged and had departed, and the few that remained were scared away. A hastily improvised meal had to be provided for the children in the house of one of the European residents to take the place of that which these modern harpies had ravished and befouled.[1]

In the light of these descriptions of the voracity and pungency of the fruit-eating bats there cannot be any doubt, it seems to me, that the persecutors of Phineus were described by Apollonius Rhodius in terms borrowed from the accounts, exaggerated though they may have been, of the fruit-eating bats of India, brought back to Alexandria by the conqueror's soldiers after his expedition to the East.

The small bats of their native land did not much impress the Greeks: they are seldom mentioned in literature, and do not figure at all, so far as I am aware, in Greek mythology. The bat is twice mentioned by Homer: once Ulysses, clinging to the fig-tree above the whirlpool Charybdis, is likened to a bat,[2] and when the souls of the slain suitors of Penelope were conducted to the nether world by Hermes, they hovered about like bats flitting around a cave.[3] Herodotus says that in and around the lake from which the Arabians obtain cassia there are

[1] The writer's father was one of the stewards at this function. The date was about 1875.

[2] Homer, *Odyssey*, xii, 433.

[3] Ibid., xxiv, 6.

' winged beasts, very like bats, and they screech fearfully and are very fierce '.[1] Elsewhere he says the Troglodytes of Africa ' feed upon serpents and lizards and such kinds of reptiles, they speak a language like no other, but squeak like bats '.[2] According to Herodotus, the Egyptians held sacred a winged serpent, which has ' wings without feathers, as like as possible to those of a bat '.[3]

In the *Birds* of Aristophanes mention is made of Chaerephon, a philosophical student, who is nicknamed ' the bat ', because he was pale and sickly and avoided the light.[4] In his well-known translation, Benjamin Bickley Rogers rendered his sobriquet, *νυκτερίς*, as ' vampire ', a word very appropriate to the sense of one passage where drinking the blood of a sacrificial victim is alluded to.[5] It is impossible, however, that the Greeks could have had any knowledge of vampire-bats, as the only two known species of true blood-sucking bats, whose teeth and digestive systems are modified for this specialized diet, are natives of Central and South America.[6] In the Old World, a species of Indian bat (*Megaderma lyra*) has been caught in the act of sucking blood, whilst flying, from a small pipistrelle-bat, which it afterwards devoured,[7] and whilst

[1] Herodotus, iii, 110 : *θηρία πτερωτά, τῇσι νυκτερίσι προσείκελα μάλισται καὶ τέτριγε δεινόν, καὶ ἐς ἀλκὴν ἄλκιμα.*

[2] Ibid., iv, 183 : *σιτέονται δὲ οἱ τρωγλοδύται ὄφις καὶ σαύρας καὶ τὰ τοιαῦτα τῶν ἑρπετῶν· γλῶσσαν δὲ οὐδεμιῇ ἄλλῃ παρομοίην νενομίκασι, ἀλλὰ τετρίγασι κατά περ αἱ νυκτερίδες.*

[3] Ibid., ii, 76.

[4] Aristophanes, *Birds*, 1296, 1564. The scholia on these passages are as follows : [1294] *ὁ Χαιρεφὼν μέλας καὶ ὠχρὸς προείρηται (νυκτερὶς δὲ καὶ παρὰ τοῖς ἄλλοις) οὗτος δ' ἂν εἴη Χαιρεφὼν ὁ Σωκρατικός.* [1564] *Χαιρεφῶν ἡ νυκτερίς. Ἐπεὶ οὔτε νυκτερὶς ἡμέρας οὔτε οἱ φιλόσοφοι φαίνονται. καταδεδυκότες γὰρ φιλοσοφοῦσι.*

[5] Aristophanes, *Birds*, 1553–1564.

[6] These two species (one of which was observed in the act of sucking a horse by Darwin in Brazil) are known to science as *Desmodus rufus* and *Diphylla ecaudata* respectively. See W. H. Flower and R. Lydekker, *An Introduction to the Study of Mammals, Living and Extinct* (London, 1891), pp. 677, 678.

[7] G. E. Dobson, *Monograph of the Asiatic Chiroptera* (London, 1876), p. 77 ; Flower and Lydekker, op. cit., p. 659.

it is possible that allied species of the same genus may occasionally supplement their normal insect diet in this manner, no records, ancient or modern, of such habits exist, and there is no species of the genus nearer to Greece than the African *M. cor* and *M. frons*. It is extremely unlikely that either of these was known to the Greeks, or even had they been that any blood-sucking propensities could have been observed, even if they in fact exist, which is very doubtful.

So far as I am aware, no collection has yet been made of instances of the bat in magic, medicine, and folk-lore, and it may not therefore be altogether out of place to consider a selection of such instances.

Bats have ever been a puzzle to the naturalists of antiquity, whose views as to their real nature were somewhat vague. Aristotle observed that the wings of bats were not feathered like those of birds, but were of skin.[1] In this connexion he mentions the ἀλώπηξ, literally 'fox', as well as the bat νυκτερίς. The former must be a fruit-eating bat to which in later times the name 'flying-fox' was given.[2] Elsewhere he observes the nocturnal habits of bats, and states that they have feet and can walk.[3] Pliny, whilst regarding bats as birds, recognized their true mammalian nature: 'The bat stands alone amongst birds in that it is viviparous, and it is also the only one that has membranous wings. Alone, also, it suckles its young, giving them the breast. The mother flies, holding her twin young, and carries them about with her. It is said that the bat has only one joint in its lower limbs, and that it is very fond of gnats.'[4] This account is fairly accurate, although bats usually bring forth only one young at a

[1] *Historia Animalium*, i, 5.

[2] The only fruit-eating bat that could have been known to Aristotle is the small kind found in Egypt, Syria, and North Africa, *Rousettus aegyptiacus*.

[3] *Historia Animalium*, i, 1; cf. *Metaphysica*, ii, 1.

[4] Pliny, *Natural History*, x, 81.

birth; twins have indeed been recorded, but they are extremely rare. The statement that the bat has only one joint in its legs is based on the fact that in all bats the knee is directed backwards, and owing to the attachment of the flying-membrane to the ankles, this joint was mistaken for the heel of other quadrupeds. Horapollo states that the bat is the only flying creature that has teeth and mammae.[1]

Pliny has much to say as to the magical and therapeutic uses of bats. He states that a living bat, carried three times round the house, and then nailed head-downwards outside the window, is a protective amulet. Similarly, it protects sheep-pens if hung by its feet above the door.[2] The blood of a bat, mixed with the juice of a thistle, is an effective remedy for snake-bites;[3] the gall of a bat, mixed with vinegar, is an antidote for the bite of the shrew-mouse,[4] and its heart is an antidote for the poison of ants.[5] The blood of the bat has depilatory virtues, and its brain has the same powers, either by itself or mixed with hedgehog's gall and goat's milk.[6] The head of a bat dried and carried as an amulet prevents sleep.[7] With regard to Pliny's statement that a bat's heart is an antidote for the poison of ants, it is interesting to note the legend that the little owl (γλαύξ) puts the heart of a bat to keep ants away from its nestlings.[8]

Some of these therapeutic and magical uses of the bat, together with some new ones, are described by the Arabic physician Ibn al-Beithar of Malaga.[9] Thus, a bat, killed

[1] Horapollo, *Hieroglyphica*, ii, 53: αὐτη γὰρ μόνη τῶν ἄλλων πτηνῶν ὀδόντας καὶ μαστοὺς ἔχει.

[2] Pliny, *Natural History*, xxix, 26. In the summer of 1922 I found a Sussex farmer nailing a bat, head downwards, over the door of a barn.

[3] Pliny, *Natural History*, xxix, 26. [4] Ibid., xxix, 27.

[5] Ibid., xxix, 29. [6] Ibid., xxx, 46. [7] Ibid., xxx, 48.

[8] Dionysius, *De Avibus*, i, 15.

[9] *Book of Simples*, s.v. خفاش L. Leclerc, *Traité des Simples*

and rubbed on the pubic region of children, prevents the growth of hair. Cooked in sesame oil, it is used as an embrocation for sciatica. A decoction of bats relaxes the belly and assuages pains in the loins. Another embrocation, for gout, paralysis, and asthma, is made by cooking a bat in oil of jasmine, and allowing it to macerate in a metal pot. The bat assists difficult labour and promotes easy delivery if its gall is applied to the vulva : this remedy is stated to have been tried by experience. Boiled in water, and the liquid being applied locally, the bat is a diuretic, and the same liquid, in a bath, cures paralysis. Bat's brain, pounded and boiled, is used as a collyrium for leucoma of the eyes, and mixed with onion-juice, the brain is used as a collyrium for cataract. If a bat's head be put under a man's pillow without his knowledge, he is a victim to insomnia, and a bat's heart has the same properties. If the head of a bat be buried near a dovecote, the birds will not forsake it, but if put in a mouse-hole, the mice will instantly quit. In another place [1] Ibn al-Beithar states that the dung of a bat, or its urine, dissolves stone in the bladder and cures leucoma of the eyes. The Algerian physician, Abd ar-Razzaq, mentions the bat in his list of *materia medica*, but he does not specify its uses.[2]

In the *Syriac Book of Medicines*, edited by Sir Ernest Budge, the bat occurs several times.[3] In a prescription for dimness of vision we read : ' Burn the heads of young swallows or bats and pound them, and work them up together with honey and smear them on the eyelids ; ' [4]

*par Ibn el-Beithar* No. 811, in *Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, t. xxv (Paris, 1881), p. 38.

[1] *Book of Simples*, s.v. شبرق ; L. Leclerc, op. cit., No. 1376, p. 356.

[2] كشف الرموز ; Leclerc, *Kachef Erroumoûz* (Paris, 1874), No. 921, p. 359.

[3] E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics, or The Book of Medicines* (Oxford, 1913).

[4] Ibid., vol. ii, p. 95.

and again : ' Another [prescription] which cleanseth filminess [of the eyes] and filleth cracks, and removeth scabies of long standing.' In this remedy bat's dung, together with lizard's dung and a number of mineral and vegetable ingredients, make up a long prescription which ends with the words : ' Rub down to a powder very carefully and use dry as *kohl*.' [1] In another prescription we read : ' Cut off a bat's head and boil it in olive-oil, and rub it in the place where thou wishest the hair to grow, and it will grow.' [2] One is inclined to suspect that by an error of the copyist of the manuscript, a negative has fallen out of the text, for the most frequent therapeutic use of the bat is as a depilatory, the reverse of the present case ; indeed, a little farther on in the same manuscript : we read : ' Smear the blood of bats on the place where thou wishest the hair not to grow, and it will not do so.' [3] In a long series of remedies for the spleen is the following : ' Kill a bat, dry it, pound it, and administer as much as will be on the top of the [thumb-] nail, in hot water. [4] Finally, this Syriac collection contains a paragraph on the magical virtues of the animal : ' The Bat. Put its head in the covering of thy head, and thou shalt never be vanquished all the days of thy life. Hang its eyes on thy person, and thou shalt not be afraid of the scorpion. When its heart is placed on an ants' nest, the ants shall not abide there.' [5] With the first sentence of this paragraph may be compared an Algonquin Indian story : ' An aged warrior who had thus in his youth dreamed of a bat coming to him, wore the skin of a bat on the crown of his head henceforth, and was all his life invulnerable to his enemies as a bat on the wing,' [6] and also the familiar English rhyme :

[1] E. A. W. Budge, *Syrian Anatomy*, etc., vol. ii, p, 101.
[2] Ibid., p. 690. [3] Ibid., p. 691.
[4] Ibid., p. 467. [5] Ibid., p. 702.
[6] E. B. Tylor, *Primitive Culture*, 2nd ed. (London, 1873), vol. ii, p. 411.

Bat, bat come under my hat
And I'll give you a slice of bacon.[1]

In the collection of medical writings of the school of Salerno two interesting references to bats occur. In a remedy for a female complaint, composed of box-juice and myrrh, ' pondus ad equale sanguis vespertilionis et sanguis veteri hirci ' is to be added.[2] In another prescription there is an echo of the earliest known therapeutic use of the bat, that contained in the Ebers Papyrus (to which reference will be made below) ; the passage reads as follows :

' De pilis evulsis ne iterum crescant.
Ne crescant iterum loca quaelibet ungue pilorum,
Verbenae succo mixto vespertilionis sanguine.' [3]

In Assyrian medicine the bat was used in a medicine ' to turn grey hair black '. For this purpose the head of a male bat is taken, boiled, and applied to the hair.[4] With this prescription it is interesting to compare a modern Indian custom, reported as recently as 1906 : ' Some women rub the blood of the small garden bat, which has well-developed ears, into the artificially dilated lobes of their ears, so as to strengthen them. The wings of bats are highly prized as a hair-wash. They are crushed and mixed with coco-nut oil and other ingredients. The mixture is kept underground in a closed vessel for three

[1] Many variants of this little rhyme occur. In Leicestershire, for instance, this form is found :

' Hat-bat come under my hat
And I'll give you a piece of bacon.'

C. J. Billson, *County Folk Lore ; Leicestershire and Rutland* (London, 1895), p. 39.

[2] *De Secretis Mulierum*, ii, 3 ; Salvatore de Renzi, *Collectio Salernitana* (Naples, 1856), vol. iv, p. 27.

[3] Salvatore de Renzi, op. cit., p. 28.

[4] R. Campbell Thompson, *Proceedings of the Royal Society of Medicine*, vol. xix (London, 1926), p. 55.

months, and then used to prevent the hair from falling out or turning grey.' [1]

In the Epic of Gilgamish, the hero relates that in the course of his travels he ate the flesh of many creatures, all of which were presumably taboo. 'Owl, bat, lion, pard, wild cat, deer, ibex . . . flesh of all them I have eaten.' [2] According to an Assyrian legend there were 'people who had the bodies of birds-of-the-holes (i.e. bats) which the gods created'.[3]

In spite of the great abundance of bats in Egypt, it is rather remarkable that so very few representations of these animals occur in the ancient monuments. Many animals that are less common, and less easily observed, figure in the magical, medical, and mythological texts, but although the wings of the bat influenced medieval art in Europe to the extent that all diabolic creatures are depicted with the leathery wings of bats, there is no trace of any god or demon founded upon or even influenced by their form in Egypt. Amongst the strange demons that people the underworld, as revealed by the *Book of Gates*, the *Book of Him who is in the Netherworld*, and kindred compositions that adorn the walls of the passages and chambers of the royal tombs at Thebes, there are creatures into whose composition many animal forms enter: winged snakes walking on legs, mummies with crocodiles' heads, and many other monsters, but none is bat-winged or in any other way derived from bats. The only pictures of the animal that exist are the naturalistic pictures of them in the Twelfth Dynasty tomb of Baket at Beni Hasan. They form part of a large series of birds, each species having

[1] E. Thurston, *Omens and Superstitions of Southern India* (London, 1912), p. 83, quoting the *Madras Mail* of January 26, 1906.

[2] R. Campbell Thompson, *The Epic of Gilgamish* (London, 1928), p. 49 (tenth tablet, col. iv, lines 31, 32).

[3] R. Campbell Thompson, *Semitic Magic* (London, 1908), p. 81 (quoting the Cuthean Legend, *apud* King, *Seven Tablets of the Creation*, p. 143, lines 10, 11).

its name written above it. The two bats, one large, the other small, have different names, and they are called *sakhemu* and *dagy* respectively. Between the two is a nearly-obliterated third figure. It is impossible to determine the species, but they are sufficiently well drawn to enable us to identify them as species of the family *Emballonuridae*.[1] In the celebrated Hilton-Price collection there was formerly a small bronze figure of a bat with large, erect ears with its wings wrapped closely about it. The existence of this figurine suggests that the bat may have been, in late times, the cult-animal of a god.[2] In Egyptian literature, the only references to bats, so far as I am aware, are those in the medical papyri. There is a group of prescriptions to prevent the growing of the eyelashes after they have been pulled out. The eyelashes were extracted in cases of trachoma and similar diseases where the swelling of the eyelids forces the lashes inwards and causes them thereby to irritate the pupil. The first of these remedies consists of frankincense, lizard's blood, and bat's blood in equal proportions, to be used as an ointment.[3] The second is similar and consists of equal parts of bat's blood, ground-up potsherd, and honey, to be smeared on the lids after the lashes have been pulled out.[4] In the same document is another prescription in which the directions are as follows: 'A cut-open bat: bandage therewith until he [the patient] is well, immediately.'[5] Owing to a scribal error the name of the disorder is omitted, but the context

[1] P. E. Newberry, *Beni Hasan*, pt. ii (London, 1894), pl. iv; Wilkinson, *Manners and Customs of the Ancient Egyptians* (London, 1837), vol. iii, p. 50, reproduces these bats, together with another, the whereabouts of which I have been unable to trace, and which is apparently tailless. Perhaps it is intended for *Rousettus aegyptiacus*, which has a short tail, but the artist has not observed it.

[2] F. G. Hilton-Price, 'Notes upon some Egyptian Antiquities in my Collection', *Transactions of the Society of Biblical Archaeology*, vol. ix (London, 1893), p. 344.

[3] *Ebers Papyrus*, 63, 12–13.

[4] Ibid., 63, 18.

[5] Ibid., 76, 8–9.

shows that it is some affection of the throat. The only other Egyptian references to the bat are in papyri of much later date. In one of these (2nd cent. A.D.) it is stated that bat's blood, put into a man's eye, will cause blindness[1] (hence, perhaps, the phrase, ' as blind as a bat '), and in another, written in Coptic (9th to 10th century, A.D.), the urine of a bat, mixed with the gall of the fish *Cyprinus niloticus*, together with the juice of wild rue, is prescribed to cure dimness of sight.[2]

In a Graeco-Egyptian magical papyrus in the Bibliothèque Nationale, Paris, is the following curious eroticon : ' An infallible method of attraction. Take the eyes of a bat, while it is still alive, then let it go. Then take uncooked flour or unrefined wax and fashion a little dog, and insert the right eye of the bat into the dog's right eye, and the left likewise into the left. . . . [Manipulations are then made with a needle, and the bat's eyes are sealed in a vase, the whole being thrown down at the cross-roads.] . . . If you want to bring him, you shall succeed.' [3] In another Graeco-Egyptian papyrus in the British Museum, the expression ' by the blood of a black bat ' is used as a conjuration.[4]

The bat does not occur as a hieroglyph in ancient Egyptian writing, in spite of the statement of Horapollo, who says that the bat was used as a symbol to denote a senseless or lazy man attempting something courageous : for the

[1] *London-Leiden Magical Papyrus*, recto, 24, 32 ; F. Ll. Griffith and H. Thompson, *The Demotic Magical Papyrus of London and Leiden*, vol. i (London, 1904), p. 153.

[2] E. Chassinat, *Un Papyrus Médical Copte* (Cairo, 1921), p. 296, No. 194.

[3] *Pap. Bibl. Nat.*, verso, 32, 2943 sq. ; C. Wessely, *Griechische Zauberpapyrus von Paris und London* (Vienna, 1888), p. 95. The association of the dog and the cross-roads may be a reminiscence of the custom of sacrificing dogs to Hecate of the Cross-roads and her Latin counterpart, Trivia. See Plutarch, *Quaestiones Romanae*, 52 ; Pausanias, iii, 14, 9 ; Ovid, *Fasti*, i, 389.

[4] *Brit. Mus. Greek Papyrus No. 121*, verso, 10, 78 ; C. Wessely, *Neue Griechische Zauberpapyrus* (Vienna, 1893), p. 45.

bat, 'though it has no wings, knows how to fly'.[1] He evidently considered that the flying-membrane of the bat was a spurious substitute for the feathered wings of birds. In another passage he says that a man who does not stir from his house is represented in hieroglyphic writing by an ant and a bat's wing, for if the wing of a bat be placed on an ants' nest, none will venture out.[2] As regards the hieroglyphs, these statements are pure fantasies, for no such signs exist, although the reasons for their use given by Horapollo appear elsewhere in folk-lore.[3]

There is a widespread belief that the souls of the dead assume the form of bats. Thus, there is a Rabbinic (Hebrew) belief that the souls of unclean persons transmigrate into the bodies of bats.[4] On the Ivory Coast of Africa, 'in the lagoon of Tendo . . . there is a certain sacred islet covered with impenetrable scrub, on which no native dare set foot. It is peopled only by countless huge bats, which at evening quit the island by hundreds of thousands and fly towards the River Tanoe, which flows into the lagoon. The natives say that these bats are the souls of the dead who retire during the day to the holy isle and are bound to present themselves every night at the abode of Tano, the great and good fetish who dwells by the river of his name. Paddling past the island, the negroes will not look at it, but turn away their heads. A European, in crossing the lagoon, wished to shoot one of the bats, but his boatmen implored him to refrain, lest he should kill the soul of one of their kinsfolk.'[5] In the Torres Straits islands there is a folk-tale in which a party of murdered men after death became flying-foxes and flew

[1] Horapollo, *Hieroglyphica*, ii, 52.
[2] Ibid., ii, 64.
[3] See above, p. 32.
[4] R. Campbell Thompson, *Semitic Magic* (London, 1906), p. 4.
[5] J. G. Frazer, *The Golden Bough*, 3rd ed., vol. vii (*Spirits of the Corn*, ii), p. 287, quoting J. C. Reichenbach, 'Étude sur le royaume d'Assine', *Bulletin de la Société Géographique*, 7th ser., vol. xi (Paris, 1890), pp. 322 sq.

back to their native land. Whilst taking refuge in a hollow tree they were caught by a man who was looking for crabs, and he bit off their heads, whereupon each became a man again.[1] In Madagascar the souls of the unburied dead were believed to turn into bats, which are there regarded as ill-omened animals,[2] and in Germany it was believed that the souls of the dead go abroad in the form of bats.[3]

In the Wotjobaluk tribe of Australia it is believed that the life of *Ngununggunut* (the bat) is the life of a man, and the life of *Yartatgurk* (the nightjar) is the life of a woman. When one of these is killed a man or a woman dies. Should, therefore, either of these animals be killed, every man and woman fears that he or she may be the victim ; and this gives rise to numerous fights. In the tribes of South-western Victoria the common bat belongs to the men who protect it against harm, even going to the length, if necessary, of killing their wives for its sake.[4] In several Australian tribes the bat is the man's totem.[5] There is a legend that accounts for the origin of the bat totem : ' The men of the different Achilpa camps began to quarrel. Some of them tried to kill others, and the latter climbed the trees, hoping to be safe there. But the other Achilpa men saw them and threw spears at them. Then they tried to fly, and found that they could do so, and became changed into large white bats, called Erlkintera. When the Achilpa

[1] A. C. Haddon, *Reports of the Cambridge Anthropological Expedition to Torres Straits*, vol. v (Cambridge, 1904), pp. 90, 91 (' The Story of Mutuk').

[2] J. Sibree, *Folk Lore Record*, vol. ii (London, 1879), p. 22.

[3] N. W. Thomas, *Folk Lore*, vol. xi (London, 1900), p. 255.

[4] A. W. Howitt, *Journal of the Anthropological Institute*, vol. xviii (London, 1889), p. 57 ; idem, *The Native Tribes of South-East Australia* (London, 1904), pp. 148–51 ; E. Crawley, *The Mystic Rose*, 2nd ed. (London, 1927), vol. i, p. 56 ; J. G. Frazer, *Totemism and Exogamy* (London, 1910), vol. i, p. 47 ; idem, *The Golden Bough*, 3rd ed., vol. xi (*Balder*, ii), p. 215.

[5] For references, see E. Crawley, op. cit., vol. ii, p. 225.

enemies saw what had taken place, they said *Atua aritna erlkintera*, which means the name of the men is Erlkintera.'[1] There is an exogamous totemic bat-clan among the Tshi-speaking tribes of the Gold Coast.[2]

Bat-gods are rare in mythology. There is a Maya bat-god who is connected with the dead. According to a coloured painting of this god on a vase, it is a creature of terrible aspect. It has a large mouth armed with teeth, great pointed ears, a hastate nose-leaf and great long, hooked claws on its thumbs, which protrude from the margin of the wing-membranes. It is evidently founded upon one of the larger Phyllostomatous bats of Central and South America. In Maya writing a bat's head with a hastate nose-leaf occurs as a hieroglyph.[3] In the *Popol Vuh*, the mythic and heroic saga of the Quiche Indians of Guatemala, is related the underworld adventures of the heroes Hunhun-ahpu and Vukub-hun-ahpu. When they entered the House of Bats, Hunhun-ahpu's head was cut off by Camazotz, the ruler of the bats. The severed head was afterwards reanimated by a tortoise. The bat-god occurs in the Borgian, Vatican, and Fejervary codices (all Mexican manuscripts), but in Mexico itself there does not appear to have been a bat-god. The bat-god also appears in the sculptured reliefs of Copan and in the Dresden Maya Codex, and his head is also used as a symbol for the northern cardinal point.[4] In Samoa a god named Tongo was incarnate in different animals in different families. In one

[1] B. Spencer and F. J. Gillen, *The Arunta* (London, 1927), vol. i, p. 378. As to the great white bat of Australia, see Baldwin Spencer, *Wanderings in Wild Australia* (London, 1928), vol. i, p. 95, and pl. v.

[2] J. G. Frazer, *Totemism and Exogamy* (London, 1910), vol. ii, p. 558.

[3] E. P. Diseldorf, 'Eine Thongefäss mit Darstellung einer Vampyroköpfigen Gottheit', *Zeitschrift für Ethnologie*, Bd. xxxvi (Berlin, 1894), pp. 576, 577, pl. xiii; E. Seler, 'Fledermaus-Gott der Maya Stamme,' ibid., pp. 577–85.

[4] Lewis Spence, article, 'Popol Vuh', *Hastings' Encyclopaedia of Religion and Ethics*, vol. x (Edinburgh, 1918), pp. 115, 116.

family he was incarnate in the bat, and had a partiality for turmeric.[1] In Savaii a large flying-fox was the incarnation of the war-god Sepo the Strong. If it flew before the warriors all was well, but if it turned about it was a warning to go back.[2]

Bats were often regarded as sacred, or as animals of good omen. The Kiwai Papuans on the Fly River estuary, New Guinea, believed that not only the flying-foxes (*sóge*), but also the smaller bats (*pipite*, *adárama* and *uteúte*), had life-preserving properties, and for this reason they are among the medicines used in house-building.[3] Flying-foxes are forbidden as food to the Tafua tribe of Tikopia or Barwell Island (Melanesia), because they are especially sacred.[4] They are similarly prohibited as food by the Pelewe of the Reef Islands.[5] In Jamaica it is believed by some of the negroes that the bat is an animal of good omen, for if one enters a house, it is a sign that a stranger or a loved one will come.[6] In China the bat is an emblem of happiness and longevity; it is frequently associated with the emblem or ideograph of longevity, and as such is a frequent decorative device on wedding gifts. The *t'ao*, the fruit of the longevity tree of the Taoist Paradise, in association with the bat, is *schwang t'ao schwang fu*, 'a two-fold perpetuation of longevity and happiness'.[7] According to another account, 'the common

[1] J. G. Frazer, *Totemism and Exogamy* (London, 1910), vol. ii, p. 158; G. Turner, *Samoa a Hundred Years Ago and Long Before* (London, 1884), p. 74.

[2] J. G. Frazer, op. cit., p. 165; G. Turner, op. cit., p. 51.

[3] G. Landtman, *The Kiwai Papuans of British New Guinea* (London, 1927), p. 429.

[4] W. H. R. Rivers, *History of Melanesian Society* (Cambridge, 1914), vol. i, p. 303.

[5] Ibid., p. 228.

[6] *Folk Lore*, vol. xv (London, 1904), p. 210. Some of the negroes of Jamaica, however, hold the opposite view, and believe that the entry of a bat into the house foretells the death of one of the inmates (*Folk Lore*, vol. xvi [1905], p. 72).

[7] Katherine M. Ball, 'Decorative Motives of Oriental Art', 2nd

name for the bat is *fúk*, but the same sound also means blessing, happiness. It is a universal practice in China to place on the door-lintel a strip of red paper bearing the inscription *Ng fúk lam mûn*, ' the five blessings enter this door '. Instead, however, of writing these four characters, the same thing is expressed by drawing five bats on the paper. ' Five blessings ' and ' five bats ' are alike spoken of as ' *ng fúk* '.[1]

In Japan, on the contrary, the bat, *Komori*, is never a symbol of happiness, for it has always been shunned and avoided as an ill-omened animal. ' Even the Buddhist priests, who ever find some lesson for mankind in every form of life, have selected it as the emblem to be used in the interpretation of *Mumyo*, or of *Mumyo no yami*, ' the darkness where there is no light '.[2] The Guarayo Indians of Bolivia believe that the soul after death performs a long journey, part of which is through a realm of darkness and terror. The man must carry a light *behind* him, so that it may not be seen by the legions of bats in this region. If the bats saw the light, they would extinguish it and set upon the traveller with fury.[3] The Berbers in Algeria believe that if a bat flies over the head of a child, even without touching it, the child will be affected with a disease called ' bat's illness ', the symptoms of which are protruding eyes, crying, headache, and sometimes loss of consciousness.[4] Similarly in Württemberg, Germany, it is said that if a bat flies into the house and settles on a person's head, that person will become bald.[5] This is an

ser., § 34, *Japan*, vol. xiii, No. 3 (San Francisco, December 1923), pp. 14, 15.

[1] H. Friend, *Folk Lore Record*, vol. iv (London, 1881), p. 85.

[2] Katherine M. Ball, op. cit., p. 17. The same writer adds that when the umbrella was first introduced into Japan, during the Meiji era, its resemblance to the wings of the bat was at once recognized, and it was called *komori gasa*, ' bat-umbrella '.

[3] H. Barbrooke Grubb, *Folk Lore*, vol. xxxv (London, 1924), p. 190.

[4] W. Hilton Simpson, *Folk Lore*, vol. xxvi (1915), p. 249.

[5] *Folk Lore Journal*, vol. i (London, 1883), p. 382.

echo of the bat's depilatory powers. A children's rhyme that evidently is intended to be a polite admonition to bats to keep away, runs thus :

Black bat, bear away,
Fly ower 'ere away,
And come again another day,
Black bat, bear away.[1]

In Sicily the bat is called *taddarita*, and is believed to be a demon or a form of the devil. In order to catch and kill it this rhyme is sung :

Taddarita, 'ncanna, 'ncanna,
Lu dimonio ti 'ncanna
E ti 'ncanna pri li peni
Taddarita, veni, veni.

When it is caught, it is conjured, because when it shrieks, it blasphemes. Hence it is killed in the flame of a candle or at the fire, or else is crucified.[2] In the familiar English rhyme to which reference has been made,

Bat, bat, fly under my hat
And I'll give you a slice of bacon,

the idea is probably the offer of a bribe to distract the attentions of the bat from the reciter of the charm. A Cornish version is more elaborate :

Airy-mouse, airy-mouse ! fly over my head,
And you shall have a crust of bread ;
And when I brew and when I bake,
You shall have a piece of my wedding-cake.[3]

[1] Mrs. Gutch and Mabel Peacock, *County Folk Lore : Lincolnshire* (London, 1908), p. 28.
[2] A. de Gubernatis, *Zoological Mythology* (London, 1872), vol. i, p. 203.
[3] *Folk Lore Record*, vol. ii (London, 1879), p. 201.

In Abruzzi (Central Apennines), bats are always driven out when they enter a house, because they are believed to harm the eyes.[1]

In the Old Testament bats are mentioned in the lists of unclean animals,[2] where they are further described as 'fowls that creep going upon all four'.[3] In the Book of Isaiah bats are spoken of as inhabitants of ruins and desolate places,[4] and in the account of the Babylonian idols in the apocryphal book of Baruch it is said: 'Upon their bodies and heads sit bats, swallows and birds, and the cats also.'[5]

Amongst the Mordvins of Russia the bat figures in a local legend of the creation of man. Shaitan, the evil spirit, fashioned the form of a man from clay gathered from seventy-seven different localities. He summoned a bat and told it to fly up to the sky and make a nest in the bath-towel of his good rival Cham Pas. The bat was there bidden to bring forth its young in the towel, so that the weight would bring it to earth. The bat carried out

[1] Estella Canziani, 'Abruzzese Folklore,' *Folk Lore*, vol. xxxix (1928), p. 212.

[2] Leviticus xi. 19; Deuteronomy xiv. 18. The Hebrew word for bat is *atalleph*, which means 'the night-flyer'. In the Song of Solomon, reference is made to 'the little foxes that spoil the vines' (ii, 15, Septuagint reads πιάσατε ἡμῖν ἀλώπεκας μικρούς ἀφανίζουσας ἀμπελῶνας). It seems probable that fruit-eating bats are here alluded to, and it is not surprising to find them called foxes when it is remembered that Aristotle also speaks of the 'fox', ἀλώπηξ, that has wings of skin (*Hist. Anim.*, i, 5). The Egyptian fruit-eating bat (*Rousettus aegyptiacus*) is found in wooded districts of Palestine (H. B. Tristram, *Natural History of the Bible*, 2nd ed., 1868, p. 46), and these bats may well be the 'little foxes' referred to by Solomon. If the ancients indeed called the fruit-eating bats 'foxes', they anticipated the modern term 'flying-foxes' by which these animals are known at the present day. The earliest use of the term 'flying-fox' that I know of in modern literature is in a passage in a letter dated 1759 from the astronomer William Hirst to John Duncombe, and published by the latter in his *Letters of Several Eminent Persons Deceased*, 3rd ed. (London, 1773), vol. iii, p. 95: 'They have heads like foxes and . . . are covered with hair of a reddish hue, for which reason they are generally called flying foxes.'

[3] Leviticus xi. 20. [4] Isaiah ii. 20. [5] Baruch vi. 22.

its orders, and the towel fell. Shaitan rubbed his clay figure with the towel, thereby imparting to it the form of a god. He was unable, however, to impart an immortal soul, and a dispute then arose between the two deities in which Cham Pas prevailed, and after chiding Shaitan for presuming to attempt to make an immortal man, he himself created one and punished the bat for helping Shaitan. The bat was accordingly deprived of his wings, and they were replaced by the bare pinions attached to shoulders fashioned like those of Shaitan.[1] The original bat was evidently conceived as a bird with feathered wings. In County Clare, Ireland, there is a local belief that bats, like birds, lay eggs. To find a bat's egg is unlucky, as use could be made of it in malignant charms.[2]

In Assam, there are stories analogous to the familiar English tale of the old woman who drove her pig over a stile. In one of these the bat figures. A bat lived in a tree, and when the tree was uprooted the bat was forcibly ejected, and consequently very angry. In its fury the bat flew into the ear of an elephant. The enraged elephant then retaliates upon another animal, and so on in a long series.[3] In another similar story the bat begins the trouble by crying out before daybreak. The cock, thinking that morning has come, crows, and then the sequence follows. The cause of the trouble being traced to the bat, as a punishment one of its legs is cut off: that is why the bat has only one foot, by which he hangs.[4] The idea that bats have only one foot doubtless arose from the fact that the Indian fruit-bats habitually hang by one foot and conceal the other.

[1] John Abercromby, *Folk Lore Journal*, vol. vii (London, 1889), p. 77.
[2] T. J. Westropp, *Folk Lore*, vol. xxii (London, 1911), p. 452
[3] J. Shakespeare, *Folk Lore*, vol. xx (London, 1909), p. 389.
[4] J. Shakespeare, *Folk Lore*, vol. xxiii (London, 1912), p. 268.

The bat occurs several times in the fables of Aesop.[1] These are too well known to need any mention here.

The large flying-foxes are used as food in many of the islands of Indonesia, Polynesia, and elsewhere. In the Banks Islands magical rites are performed to increase the supply ;[2] bats are eaten in many parts of New Guinea, and the Torres Straits islanders have thence borrowed the practice, but it is generally considered objectionable amongst the islanders.[3] Amongst the natives of the Lower Congo region of Africa the fruit-eating bats *Rousettus aegyptiacus* and *Eidolon helvum* are considered as dainties, and elaborate noose-traps are constructed to catch them on the wing. To ensure an abundant catch, the skull of the first bat caught is crushed between the teeth and its flesh eaten ; at the same time various magical rites are performed. The captured bats are boiled or roasted before eating ; they are spitted on a stick which is bent over the fire. The catching apparatus is furnished with bells made of shells, which jingle when a bat is snared and thereby give a signal to a man concealed near by to take the animal off to prevent it from scaring others.[4]

In the British Isles bats were believed to foretell fine weather. ' Bats or flying mice, came out of their holes quickly after sunset and sporting themselves in the open

[1] Roger L'Estrange, *The Fables of Aesop*, 2nd ed. (London, 1694), Nos. 39, 40, 144, pp. 42, 131.

[2] W. H. R. Rivers, *History of Melanesian Society* (Cambridge, 1914), vol. i, p. 163.

[3] A. C. Haddon, *Reports of the Cambridge Anthropological Expedition to Torres Straits*, vol. iv (Cambridge, 1912), p. 137. In the Western Islands of Torres Straits, the flying-fox, native name *sapor* (*Pteropus macrotis*), is a totem. Drawings and carvings of these bats were made by the natives, and specimens are now in the Cambridge Ethnographical Museum. A. C. Haddon, op. cit., vol. v, p. 154 and pl. v, fig. 4, pl. xi, fig. 2.

[4] G. Lindblom, ' A Noose-trap for the Capture of the Fruit-eating Bats of the Lower Congo Region ', *Man*, vol. xxviii (London, 1928), § 69, p. 93, with pl. F.

air, premonstrates calm and fair weather.'[1] In the Fly River estuary, New Guinea, the Kiwai Papuans make use of bats in ceremonies to bring fine weather, or as they call it, to ' make big sun ', after periods of excessive rain. The magician ' takes the fruit of a *morta* tree (which only grows inland on hard, dry soil much exposed to the sun) and attaches to it some claws of the *sóge* (flying-fox), the *pepite* (bat), the *pádi* or *párima* (cuscus), and the *gibúra* (black cuscus). When the fruit is burned on the fire, the smoke, rising towards the sky, will make it warm on high and stop the rain. The cuscus and bats are burned because they always hide themselves when there is sun, only moving about at night.[2] Bats are also invoked in ceremonies for controlling strong winds.[3]

Bats, or parts of bats, used in medicine and magic have already been referred to : a few more instances may be given. In India (North-west Provinces) it is believed that a bat's bone tied round the ankle is a cure for rheumatism,[4] and in the Lower Congo the fore-limb of a bat is used in a hunting charm.[5] In Hungary it is believed that bats used for magical purposes must be caught before St. George's Day (April 23rd).[6] The two following quotations are from works composed in the Middle Ages :

' The reremouse[7] hating light flyeth in the eventide with breaking and blenching and swift moving, with full small skin of her wings. And is a beast like to a mouse in sounding with voice in piping and crying. And he is like to a bird, and also to a four-footed beast ; and that is but

[1] Thomas Willsford, *Nature's Secrets* (London, 1658), p. 134.
[2] G. Landtman, *The Kiwai Papuans of British New Guinea* (London, 1927), p. 61.
[3] Ibid., p. 60.
[4] W. Crooke, *Folk Lore Record*, vol. iv (London, 1881), p. 135.
[5] J. H. Weeks, *Folk Lore*, vol. xix (London, 1908), p. 432.
[6] N. W. Thomas, *Folk Lore*, vol. xi (London, 1900), p. 255.
[7] *Reremouse* is derived from the Anglo-Saxon *raeran* ' to raise ' or ' rise up '. See A. L. Mayhew and W. W. Skeat, *Concise Dictionary of Middle English* (Oxford, 1888), p. 187, s.v. ' Reren '.

seld found amongst birds. Reremice be blind as moles and lick powder [dust] and suck oil out of lamps, and be most cold of kind; therefore the blood of a reremouse nointed upon the eyelids suffereth not the hair to grow again.' [1]

'If you wish to see anything submerged and deep in the night, and that it may not be more hidden from thee in the day, and that thou may read books in a dark night, —anoint your face with the blood of a Bat, and that will happen which I say.' [2]

Sir Theodore Turquet de Mayerne (1573–1655), physician to James I and Charles I and a notable doctor in his day, devised a 'Balsam of Bats', an unguent for hypochondriacal patients, composed of adders, bats, sucking-whelps, earthworms, hog's grease, stag's marrow, and the thigh-bone of an ox.[3] In the pharmacopoeias of the eighteenth century the bat is still to be found.[4]

Finally, a curious erotic charm occurs in an English manuscript written in 1693–5: 'Take the blood of a bat and write in thy hand with it g : h : b : m ♃ · 2 : b : d : and thou touch her therewith.' [5]

This long excursus on the folk-lore of bats has taken us far from the original object of this chapter. The ideas and beliefs held by many widely separated peoples tend

[1] Bartholomaeus Anglicus, *De Proprietatibus Rerum*, xii, 38; H. W. Seager, *Natural History in Shakespeare's Time* (London, 1896), p. 27.

[2] Albertus Magnus, *De Mirabilibus Mundi*; H. W. Seager, loc. cit.

[3] P. H. Ditchfield, *Country Folk* (London, 1923), p. 63.

[4] N. Lemery, *Traité Universel des Drogues Simples*, 3rd ed. (Paris, 1723), p. 885, 'Elle est resolutive et propre pour la douleur de la goutte, étant écrassée et appliquée dessus.' Robert James, *Pharmacopoeia Universalis*, 2nd ed. (London, 1752), p. 359: 'The flesh and blood of this animal are used; the first of which, being prepared, is good for a Schirrus, and the gout, and the blood cures an Alopecia.'

[5] M. Gaster, *Folk Lore*, vol. xxi (London, 1910), p. 376. For further references to the bat in English folk-lore, see *Folk Lore*, vol. xi (1900), pp. 239, 256; vol. xx (1909), p. 344; vol. xxii (1911), pp. 204, 453.

to show the light in which bats were regarded and will help in some measure to justify the suggestion here put forward that the harpies, originally wind-spirits, were afterwards reinterpreted as foul monsters based upon the observation of, and the belief concerning, bats, nocturnal and mysterious animals fraught with terror and ill-luck.

*Additional Note.*—Since the foregoing pages have been set up in type, Sir James Frazer's interesting book, *Myths of the Origin of Fire*, has appeared. In this book there are several instances of the occurrence of the bat in legends relating to the origin of fire. Thus in Mowat, British New Guinea, there is a legend that fire was first introduced by a large bat named Eugon, who stole it from a neighbouring tribe (p. 28). The Navahoes of New Mexico believe that in the days when the animals had fire and men had none, fire was procured for them by the friendly alliance of the coyote, the bat, and the squirrel (pp. 140, 214). And again, 'The Nishinam Indians of California tell how, when all the fire in the world was hidden away somewhere far in the west, the bat proposed to the lizard that he should go and steal it. The lizard fell in with the proposal and stole the fire, but in carrying it he set the grass ablaze and had to run for dear life; and a righteous retribution overtook the bat who had bespoken the theft, for the fire almost blinded him, and though the lizard applied a plaster of pitch to his eyes, the remedy had but little effect, and the bat has been blear-eyed to this day, and is still so black that you have only to look at him to see that he was singed by the fire' (p. 215; cf. p. 156).

## CHAPTER III

# A MAN WHO BECAME A GOD

' He raised a mortal to the skies.'—Dryden, *Alexander's Feast.*

AMENOPHIS the son of Hapu [1] is a notable figure in Egyptian history, but apart from some brief references to him to be found in the various standard histories of Egypt, and from such notes as accompany the editions of various specific inscriptions associated with him, it appears that no monograph specially devoted to Amenophis has yet appeared except that published by Professor Kurt Sethe over thirty years ago,[2] and a popular article by the late Sir Gaston Maspero.[3] As the volume in which Sethe's memoir appeared is rare and very difficult to obtain, and as, moreover, several important documents have come to light since it was composed, there seems some justification for a brief summary of what is now known concerning this remarkable personage.

So far as we know from the records that have survived, but few men in ancient Egypt were remembered by posterity in their own country for long after they died. It was not a habit of the Egyptian mind to recall the past, and the reason for this is easy to understand. Each Pharaoh was a god, and each regarded himself as perfect, a paragon of virtue never surpassed nor even equalled by his predecessors. He could not tolerate an equal, far less a superior. Consequently in every royal inscription with which the

[1] This chapter is based (with some modifications and additions) upon an article contributed by the writer to *Ægyptus*, vol. vii (Milan, 1926), pp. 113–38.

[2] *Aegyptiaca : Festschrift für Georg Ebers* (Leipsic, 1897), pp. 107-16.

[3] *Journal des Débats*, December 31st, 1901. Reprinted in *Causeries d'Egypte* (Paris, 1907), pp. 221–8.

kings adorned their temples the same self-praise and self-sufficiency is found. It is quite by exception that occasionally a Pharaoh may be seen paying honour to his ancestors, or even to his immediate predecessors. That the kings held their ancient line in scant veneration is amply proved by the numerous instances extant of one Pharaoh usurping the monuments of another. What was done by the kings was copied by their nobles and officials. Numerous biographical inscriptions have come down to us, in which the subject, with a monotonous insistence on the first person, relates the events of his career, his personal bravery or merit, the favours and promotions bestowed upon him by the king, and last, but not least, a long and eloquent testimonial, composed by himself, to his many good qualities and virtues. Two extracts will illustrate the tenor of these texts:

'The just man in the Two Lands, truly equitable like Thoth, master of the ceremonies in the temples, superintendent of all the works in the palace, . . . benevolent of heart, kindly in advice, uttering good words, speaking that which endears, benevolent of heart without equal, courteous when he listens, wise when he speaks, a magistrate who weighs his words and one chosen by his lord from amongst many. . . .'[1]

'The only wise, equipped with knowledge, the really safe one, distinguishing the simple from the wise, exalting the craftsman, turning his back upon the ignorant, . . . void of deceit, useful to his lords, accurate-minded with no lie in him, . . . protector of the weak, husband of the widow, shelter of the orphans, . . . praised on account of

[1] Stela of Sehotepibrē at Cairo; cf. G. Maspero, *Études de Mythologie et d'Archéologie Égyptiennes*, vol. iv (Paris, 1900), p. 137.

his character, for whom the worthy thank god because of the greatness of his worth . . .' [1]

To cite the name of any one who had gone before was to admit tacitly that another had lived who was comparable in efficiency and virtue with the autobiographer himself—an unthinkable thing for an Egyptian noble. And yet he wished to be remembered himself, otherwise there could be no possible purpose in composing and engraving the long inscriptions that cover the stelae and the walls of many a tomb-chapel at Thebes and throughout Egypt. Indeed, most of the inscriptions terminate with a petition to the passer-by to recite a funereal formula for the welfare of the occupant of the tomb.

Were we credulous enough to believe the statements in these biographical inscriptions, we should picture an Egypt governed by saints and supermen, wholly incapable of error, not to say of wrong. But the very sameness of the theme, however much it may be varied in detail, reveals too glowing a picture to carry conviction, and besides, hard facts belie the felicitous verbiage of the texts. There is abundant evidence, not of a Utopia, but of a country in which every kind of corruption and malpractice was rife among the governing classes. When the writers of the inscriptions use, as they frequently do, such expressions as 'I did not despoil the poor, I did not oppress the weak', the French proverb '*Qui s'excuse s'accuse*' must at once occur to our thoughts. In spite of the reiterated statements of a nomarch or a vizier that during his administration no man hungered and none was wretched throughout the land,[2] there is very definite evidence that the lot of the poor in Egypt was hard, hard almost to the pitch

[1] Stela of Antef (Louvre, C. 26); cf. J. H. Breasted, *Ancient Records of Egypt*, vol. ii (Chicago, 1905), p. 298, § 786.

[2] Inscription of Ameni at Beni Hasan; cf. P. E. Newberry, *Beni Hasan*, pt. i (London 1893), pl. viii, line 19.

of brutality. The *fellahin* were overworked and underpaid, and were deprived even of their scanty rations by the rapacity and greed of self-seeking officials, who appropriated much to themselves and battened on their ill-gotten gains. At times the workmen could bear their oppression no longer, and they left their work in turbulent bands, formed mass meetings, and demanded justice. Such are the earliest strikes which history has recorded. In the reign of Ramesses III and again under one of his successors, Ramesses IX, serious strikes occurred amongst the workers in Western Thebes.[1]

The above remarks, it must be admitted, do not display the Egyptian ruling classes in a very favourable light, but undoubtedly there must have been amongst them men of integrity, merit, and ability. The material achievements of the Egyptians show that their undertakings must have been conceived, planned, and supervised by men of genius and ability, and a very high standard of honour and efficiency was demanded of his ministers by the king.[2] But it is impossible to escape the conclusion that the greater number of them were selfish braggarts, fawning and obsequious before the Pharaoh, ever ready to curry favour and continually seeking their own advancement and material welfare. For a picture of the real Egyptian we must turn to the documents which give some account of the daily life of the rank and file. In the *Story of the Two Brothers* and the *Story of the Eloquent Peasant*, for instance, there is more sincerity and more reality than can be found

[1] These strikes are recorded in the journal of the Theban Necropolis, preserved in a large series of hieratic papyri in the Turin Museum. See W. Spiegelberg, *Arbeiter und Arbeiterbewegung in Pharaonreich* (Hanover, 1892); G. Maspero, *The Struggle of the Nations*, 2nd ed. (London, 1910), pp. 171–83; G. Botti and T. E. Peet, *Il Giornale della Necropoli di Tebe*, vol. i (Turin, 1928); etc.

[2] e.g. the Instructions to the Vizier in the inscription of Rekmirē. See P. E. Newberry, *The Life of Rekhmara* (London, 1900), pls. ix and x; J. H. Breasted, *Ancient Records of Egypt*, vol. ii, pp. 268 sq., §§ 666 sq.

in a thousand tomb or temple inscriptions.[1] The papyri and ostraca that record the events in the daily life of the work-people at Thebes, the evidence given by and against them in legal prosecutions, the letters, scribblings, and jottings made by them, of which we have so large a store, all provide a mine of information and human interest.[2] In this connexion also reference may be made to the stelae dedicated in the Theban Necropolis by the humbler members of the population.[3]

In spite of their grandiloquent inscriptions and reiterated self-praise, most of the nobles and officials, however great in their day, were soon forgotten and passed into oblivion. There are, however, some few who acquired great reputations and whose memories were kept green for many generations, some of them actually being deified many centuries after they had died. There lived, for instance, in the time of the Pharaoh Assa (or Issi) of the Fifth Dynasty a certain vizier named Ptah-hotp. Feeling old age creeping upon him, he composed a book of precepts or instructions for the benefit of his children, to impart to them the moral conduct and behaviour proper to persons of high rank and entrusted with authority. This book, which certainly has outstanding merits, became a literary classic, and was current in Egypt many centuries after its author died. The oldest surviving copy, known to-day as the *Papyrus Prisse*, dates from the Middle Kingdom, and in the British Museum is another fragmentary copy of about the same age. The late Earl of Carnarvon discovered

[1] G. Maspero, *Popular Stories of Ancient Egypt*, transl. by C. H. W. Johns (London, 1915), where bibliographies and translations will be found; A. Erman, *The Literature of the Ancient Egyptians*, transl. by A. M. Blackman (London, 1927), pp. 116 sq., 150 sq.; etc.

[2] See above, p. 52, note 1, and T. E. Peet, *Journal of Egyptian Archaeology*, vol. xi (1925), pp. 37–55.

[3] A. Erman, 'Denkstein aus der thebanischen Graberstadt', *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, vol. xlix (Berlin, 1911), pp. 1086–1110; Battiscombe Gunn, *Journal of Egyptian Archaeology*, vol. iii (1916), pp. 81–94.

at Thebes, a writing-tablet on one side of which is written a long extract from the Proverbs of Ptah-hotp, and on the other is an historical text that enables us to date the manuscript to the beginning of the Eighteenth Dynasty (*circa* 1580 B.C.). Finally, in 1910, Sir Ernest Budge published yet another copy of the text from a papyrus in the British Museum, also dating from the Eighteenth Dynasty.[1] Dr. Alan Gardiner has pronounced the Precepts of Ptah-hotp to be the most difficult of Egyptian texts, and up to the present no wholly satisfactory translation has appeared.[2] The text is of the highest interest and is the oldest Wisdom Book in the world.

Another man who attained great celebrity was Imhotep, who was architect, priest, and physician to King Zoser, a Pharaoh of the Third Dynasty, the builder of the celebrated ' Step-Pyramid ' at Sakkara. Imhotep was venerated for nearly thirty centuries, and was finally deified, becoming the god of medicine. The Greeks, who called him Imouthes identified him with their own god of medicine, Asklepios, or Aesculapius.[3]

Yet another instance of posthumous fame is afforded by the prince Khamwēse, one of the numerous sons of Ramesses II. He acquired a great reputation for his learning and for his knowledge of magic, and centuries after his death he became, in Graeco-Roman times, the

[1] E. A. W. Budge, *Egyptian Hieratic Papyri*, 1st ser., (London, 1910), pp. xvii–xxi and pls. 34–8. The Carnarvon Tablet was published by G. Maspero, *Recueil de Travaux*, vol. xxxi, pp. 136 sq. All the texts have been republished by E. Dévaud, *Les Maximes de Ptah-hotep* (Fribourg, 1916).

[2] By far the best of the numerous translations hitherto attempted is that of Battiscombe Gunn, *The Instruction of Ptah-hotep*, 2nd ed., (London, 1912). In this book a bibliography will be found to which must be added the publications relating to the since discovered duplicate texts. Cf. also A. Erman, *The Literature of the Ancient Egyptians* (London, 1927), pp. 54 sq.

[3] For a full account of Imhotep, see the admirable monograph by the late Dr. J. B. Hurry, *Imhotep*, 2nd ed. (Oxford, 1928). This volume contains a full bibliography.

hero of two popular romances and is also mentioned by Herodotus under the name of Sethon.[1]

Finally, we will mention only one more—the subject of the present study—Amenhotp the son of Hapu. Although familiar to Egyptologists, he is not so widely known outside that circle, and as his claims to celebrity are at least as strong as those of certain others, it may be interesting to glance through the records of him which have survived, and to reconstruct his story as far as possible. The name Amen-hotp, which means 'Amūn is satisfied', was a common one throughout the New Empire, and was borne by four kings of the Eighteenth Dynasty, when the city of Thebes was the capital of the world and her god Amūn obtained supremacy over all other gods. The Greek forms of the name are Amenothes and Amenophis, and it is by the latter of these names that we shall refer to our Amenhotp. The words that follow his name, 'the Son of Hapu', were as necessary to the ancient Egyptians as they are to us to distinguish him from his many namesakes.

. . . . .

Amenophis the son of Hapu was born at a propitious time, that is to say, during the reign of Tuthmosis III, the great warrior king, who carried out extensive military campaigns in Asia and elsewhere, and under whose rule Egypt could, to use a contemporary phrase, 'set her boundaries where she would'. The enormous wealth and prestige that resulted from this rapid expansion of the Empire gave unprecedented scope for men of mark. Amenophis was descended from an ancient family of the city of Athribis in the Delta. His ancestors had been

[1] F. Ll. Griffith, *Stories of the High Priest of Memphis, the Sethon of Herodotus, and the Demotic Tales of Khamuas* (Oxford, 1900); G. Maspero, *Popular Stories of Ancient Egypt* (London, 1915), pp. 115–71.

nomarchs, or local governors, and his father bore the title of Chief Prophet in the temple of his native town. Of his mother we know nothing, except that her name was Iatu. Athribis was a provincial town, at that time of no great importance, although under the Saite kings of the Twenty-sixth Dynasty it became an important religious centre, and played a more prominent part in the history of the country. It was the capital of the tenth nome of Lower Egypt, and a form of Horus—Horus Khentekhthai—was its patron god. Amenophis must have early migrated to Thebes, but he never severed the connexion between himself and his native city, for he associates himself with the Nome of Athribis in many of his inscriptions, and bore the title of ' Chief of the Prophets of Horus, the Lord of Athribis ', side by side with his distinctively Theban titles. He also obtained from his Theban master, the Pharaoh Amenophis III, certain benefits for the city of Athribis, as we shall presently see, and finally, at his death, the local Horus of his city was invoked in an inscription upon his sarcophagus.

By what steps he first rose to eminence we do not know, but in the reign of Amenophis III we find him in the full confidence of the sovereign, and rising to higher and higher promotion by the favour of that king, who eventually paid him the great honour of allowing him to place statues of himself in the great temple of Karnak.

Six statues of Amenophis are known, and before proceeding farther it will be convenient to enumerate them. All except No. VI are in the Cairo Museum.

I. Kneeling statue, head broken off and missing; height 1 m.[1]

[1] A. Mariette, *Karnak* (Leipsic, 1875), pls. 36, 37; E. De Rougé, *Inscriptions Hiéroglyphiques copiées en Egypte* (Paris, 1879), pls. 23–8; H. Brugsch, *Thesaurus Inscriptionum Ægypticarum*, vol. vi (Leipsic, 1891), pp. 1292–8; H. Brugsch, *Zeitschrift für ägyptische Sprache*, vol. xiv (1876), pp. 96 sq.; J. H. Breasted, *Ancient Records of*

II. Colossal statue, figure erect with left leg advanced, arms vertically on each side of the body, left hand broken off. On the back is a pillar on which is represented Amenophis worshipping Amūn, and an inscription in three columns. On the pedestal, offering-formula in one horizontal and eleven vertical columns. On the belt, names and titles. On pedestal a Greek inscription as follows: ΚΑΙΣΑΡΑ ΑΥΤΟΚΡΑΤΟΡΑ ΘΕΟΥ ΥΙΟΝ ΕΛΕΥΘΕΡΙΟΝ ΣΕΒΑΣΤΟΝ. height 4 m. 17 cm. Discovered by Daressy at Karnak in 1893, where it had been unearthed by *sebakh*-diggers. This statue, according to Sethe, is of Graeco-Roman age.[1]

III. Kneeling statue, discovered by Legrain in 1901. The face is that of a very old man, and has been retouched, according to Maspero, in Ptolemaic times. Inscriptions on base, and upon the apron covering the knees. Workmanship and preservation admirable. Height 1 m. 40 cm.[2]

IV and V. Two cross-legged sitting statues, both identical, discovered by Legrain in 1913, at the foot of the colossus of Haremhab at Karnak. A roll of papyrus spread over the knees, right hand holding a pen, a scribe's outfit over the left shoulder. On the breast and right arm are the cartouches of Amenophis III. Technique and preservation admirable. Height 1 m. 30 cm.[3]

VI. Lower part of a similar cross-legged statue in black

*Egypt* (Chicago, 1905), vol. ii, pp. 373–7, §§ 913–20; G. Maspero, *Guide du Visiteur au Musée du Caire*, 4th ed. (Cairo, 1915), p. 124, No. 409.

[1] G. Daressy, *Recueil de Travaux*, vol. xix (Paris, 1897), p. 13; G. Maspero, *Guide du Visiteur*, p. 6, No. 3; idem, *Art in Egypt* (*Ars Una*), (London, 1921), fig. 478.

[2] G. Legrain, *Annales du Service des Antiquités*, vol. ii (Cairo, 1901), p. 272; idem, *Statues et Statuettes* (*Catalogue générale du Musée du Caire*), vol. i (Cairo, 1906), pp. 78–80, pl. 76, No. 42127; G. Maspero, *Annales du Service*, vol. ii (1901), pp. 281–3; idem, *Art in Egypt* (*Ars Una*), (London, 1921), p. 167, fig. 321; idem, *Guide du Visiteur*, p. 136, fig. 50, No. 459; J. H. Breasted, *Ancient Records of Egypt*, vol. ii, pp. 372, § 912.

[3] G. Legrain *Annales du Service des Antiquités*, vol. xiv (1914), pp. 17–29, pls. i–iii.

granite. The statue has been in the British Museum for nearly a century, but it has only recently been recognized as belonging to Amenophis the son of Hapu. Inscriptions placed as in Nos. IV and V, but differing from them in wording.[1]

It is to the inscriptions on these statues that we are mainly indebted for particulars of the career of Amenophis. The long inscription on statue No. I, after the introductory funerary prayers and the usual eulogistic expressions, which state, amongst other things, that Amenophis was learned in the hieroglyphs, gives us an account of three successive promotions conferred upon him by the king. He was first appointed Inferior Royal Scribe, and thereby obtained initiation into the secret wisdom of the god Thoth. From this position he rose to be Superior Royal Scribe, and Scribe of the Recruits. In this capacity Amenophis assumed both civil and military responsibilities. He tells us that he was responsible for the placing of troops in appropriate positions for the enforcement of tribute and customs, and also for the purposes of defence against raids of the Bedouins. He was also placed over the expeditionary forces who warred in Syria and Nubia, and had charge of all the spoils of war. Finally, the king appointed him Chief of all Works. By this third promotion he became the Architect in charge of the building and embellishing of the temples and other buildings. He made and transported to Thebes statues of the king, a point to which further allusion will be made. As a further favour to his minister, the Pharaoh conferred great benefits upon Athribis, constructing a great lake with its banks radiant with flowers. He likewise embellished the temple of Horus. In the Cairo Museum is a great granite statue of a serpent,

[1] E. A. W. Budge, *Guide to the Egyptian Galleries (Sculpture) in the British Museum* (London, 1909), p. 154, No. 555 ; S. R. K. Glanville, *Journal of Egyptian Archaeology*, vol. xv (1929), pp. 2–5, pl. ii, fig. 2.

which was placed as a protecting deity in the temple of Athribis, where it was discovered in recent times. As this statue bears the cartouches of Amenophis III it is doubtless one of the gifts made by that king.[1] As a final favour, through the generosity of the sovereign, Amenophis gave his parents, Hapu and Iatu, a splendid burial, a fact which he records with pride. 'There is no citizen for whom the like has been done,' states the text.[2]

A second statue, a colossus, represents Amenophis standing upright with his left foot slightly advanced. He wears the thick, short wig and kilt, and is portrayed in the prime of life. Against the back of the figure is a pillar which bears an inscription, but this adds no new particulars, except that Amenophis is called 'General of the Army' in addition to his other titles.[3] The third statue is of greater importance, and represents Amenophis as an old man, with a senile expression and a wrinkled face, and it is one of the masterpieces of Egyptian sculpture. The face was retouched, according to Maspero, in Ptolemaic times.[4] This statue bears on its pedestal an inscription recording the fact that it was placed in the temple of Karnak by the favour of the king. A longer inscription engraved on the knees of the same statue gives us some more personal details. His titles are here given as 'Treasurer of the King of Lower Egypt, Royal Scribe, Scribe of the Recruits, Amenophis the son of Hapu, of the Nome of Athribis'.

[1] G. Maspero, *Guide du Visiteur au Musée du Caire*, 4th ed. (1915), p. 140.

[2] For a description and bibliography of this statue, see above. The text was first translated by Brugsch, *Zeitschrift für ägyptische Sprache*, vol. xiv (1876), pp. 96 sq. Certain erroneous conclusions which he drew from his text were corrected by Sethe, *Festschrift für Georg Ebers* (Leipsic, 1897), pp. 110–12, and by Breasted in his translation, *Ancient Records*, vol. ii, pp. 373–7, §§ 913–20.

[3] Statue No. II. This statue, according to Sethe, is of Graeco-Roman age; article, 'Heroes and Hero Gods (Egyptian)', in *Hastings' Encyclopaedia of Religion and Ethics*, vol. vi, p. 651.

[4] *Art in Egypt* (*Ars Una*), 1921 ed., p. 176.

The text is an address to the god Amūn in which he demands the favour of the god, recounting his good deeds and high reputation as a justification for all that he asks, concluding with the assertion, 'I have attained the age of 80 years, may I live to be 110.'

Whether he realized his ideal or not we cannot tell. The age of 110 was the most honoured goal an Egyptian could reach, in a country in which old age was greatly respected. Many biographical and funerary stelae state with pride that their owners reached a good old age, and a common epistolary formula was a polite wish that the recipient might enjoy prosperity, good health, and 'a ripe (*lit.* 'high') old age'. In this connexion we may quote a few other ancient Egyptian references to a longevity of 110 years. At the end of the *Precepts of Ptah-hotp* we read the concluding words of the aged author: 'I have gathered 110 years of life, for the king granted more favours than my ancestors, because I acted with truth and justice for the king until my old age.'[1] In the Westcar Papyrus the wonderful prodigies performed by an aged magician are described: 'There is a man of humble birth and Djedi is his name. . . . He is a poor man of 110 years of age, but he can eat 500 loaves and a leg of beef and drinks a hundred jugs of beer to this very day.'[2] A model letter contained in a papyrus in the British Museum is full of pious wishes, and expresses the hope that the recipient will fulfil 110 years upon earth before he is gathered to his fathers,[3] and another similar text in the same collection voices the same hope.[4] In the decree of our Amenophis, dealt with below, it is stated of the faithful that 'their bodies shall rest in the necropolis after a life of 110 years'.[5]

[1] *Papyrus Prisse*, 19, 7.
[2] *Papyrus Westcar*, 7, 2.
[3] *Papyrus Anastasi*, iv, 4, 4.
[4] *Papyrus Anastasi*, iii, 4, 8.
[5] *Decree of Amenophis*, Brit. Mus. No. 138, line 16. It may be noted in passing, as one of the many Egyptian touches in the Books of Moses, that Joseph died in Egypt at the age of 110.

In October 1913 Legrain made the extremely important discovery at Karnak of two more inscribed statues of Amenophis.[1] In these, which are exact duplicates, Amenophis is represented sitting, cross-legged, with an open roll of papyrus upon his knees, like the celebrated 'cross-legged scribes' of the Old Kingdom.[2] Here again he is in the prime of life. The inscriptions are traced upon the open papyrus which he holds and upon the pedestal of each statue. Both are stated to have been placed in the temple of Karnak by the favour of the king. On the pedestal of the first statue, the inscription reads:

'Oh ye of the South and North, all who behold the Aten [the sun's disk] and who fare up the Nile to Thebes, come ye to me! I will transmit your words to Amūn of Karnak if ye will recite for me the Offering-formula [3] and pour out for me a libation from that which is in your arms. For I am the intercessor appointed by the king to hear your words of supplication, and to transmit on high the needs of those upon earth.'

On the other, we read the following:

'Oh ye people of Karnak who desire to behold Amūn, come ye to me! I will make known your prayers, for I am the intercessor of this god, and Nebmerē (Amenophis III) has placed me here to repeat the words of those in earth. Recite for me the formula, and invoke my name continually as ye do that of a blessed one.'

Genesis l. 22. See also the inscription in the Theban tomb of Thoy, *Journal of Egyptian Archaeology*, vol. xiii (1927), pl. xvii.

[1] Statues IV and V. See above, p. 57.

[2] For the Old Kingdom statues, pictures of which have been reproduced in numerous books on Egypt, see especially G. Maspero, *Essais sur l'Art Egyptien* (Paris, 1912), pp. 53–68.

[3] For an exhaustive and admirable study of the Offering-formula see A. H. Gardiner, *Tomb of Amenemhēt* (London, 1915), pp. 79–93.

These inscriptions are of the greatest interest, indicating as they do that Amenophis interceded for mortals with the god Amūn. To perform this function, he was appointed by the king. We have no other instance of a functionary acting in this way as the oracle of the god, for the titles of Amenophis were all civil, and not religious, and he must therefore have acquired during his lifetime the semi-divine attributes for which he became famous centuries after his death.

A further inscription on one of these statues states that Amenophis was bidden to summon to Thebes all the persons who had to take part in the celebration of the first *sed*-festival, or jubilee, of the Pharaoh Amenophis III. It was evidently celebrated in some place distant from Thebes, and as Legrain has pointed out,[1] it was probably the occasion of the dedication of the temple of Soleb, in Nubia. This temple was of considerable size and was approached, like great temples of Thebes, by an avenue of ram-headed sphinxes.[2] On the walls of the ruined façade is a bas-relief representing the god Amūn and the king attended by his minister, Amenophis the son of Hapu. The queen, the princesses, and the principal officers of the State are also present in ceremonial attire.[3] A statue of this king was placed in this temple, and he was there venerated as a god. Amenophis was well versed in the sacred rites proper to such solemn occasions, for we have been told that on his promotion to the office of Royal Scribe he thereby had access to the sacred writings of Thoth.

Amenophis lived to be a very old man. When at length he died, he doubtless had a very magnificent funeral. The site of his tomb is unknown, but it has been supposed,

[1] *Annales du Service*, vol. xiv (1914), p. 22.

[2] C. R. Lepsius, *Letters from Egypt, Ethiopia, and the Peninsula of Sinai* (London, 1853), pp. 223.

[3] C. R. Lepsius, *Denkmäler*, Abth. iii, pls. 83–8; G. Maspero, *Struggle of the Nations*, 2nd ed. (London, 1910), p. 301.

with considerable probability, that his tomb-chapel was situated at Deir el Medineh, where in later times he was venerated as a god.[1] His burial equipment has likewise perished, with the exception of some fragments of his great granite sarcophagus, which are now preserved in the Museum of Grenoble.[2] Enough can be seen from these fragments to show that the sarcophagus when entire was a very magnificent one, similar in technique and design to those of the sovereigns of the Eighteenth Dynasty discovered in recent years in the Valley of the Kings by the late Theodore Davis. On this monument, amongst the usual funerary deities invoked, is the god Horus Khentekhthai, the patron god of Athribis, Amenophis's native city. Thus he remained to the end of his life faithful to his earliest associations. Granite sarcophagi of this type were not used for private individuals in the Eighteenth Dynasty, and from the fact that the sarcophagus of Amenophis was of the royal pattern, we are justified in

[1] A. E. P. Weigall, *Guide to the Antiquities of Upper Egypt*, 2nd ed. (London, 1913), p. 276.

[2] Described *in extenso* by A. Moret, *Revue Egyptologique*, new ser., vol. i (Paris, 1919), pp. 174–9. We are told in *Ancient Egypt* (1921), p. 87, that another piece of this monument is in the collection at University College, London. It is ever to be regretted that museums will accept fragments of monuments when the whereabouts of the original piece from which they have been detached is known. Fragments should always be restored to their original places, as by themselves they are entirely without value. Some missing fragments from the lid of the sarcophagus of Sethos I have been recovered in recent years. One series of these fragments, discovered by German archaeologists, has courteously been sent to the Soane Museum and restored to its place, but another series of fragments lies in the British Museum, isolated and bereft of all archaeological value. Lepsius carried off to Berlin some fragments of the beautiful sarcophagus of Ai; the sarcophagus has been restored in the Cairo Museum and the Berlin portions replaced by casts. The body of the sarcophagus of Ramesses III is in the Louvre, and its lid is in Cambridge. Some reliefs and columns taken from the tomb of Sethos I are scattered in various European museums, and their places in the original tomb are taken by modern brickwork or plaster. The beautiful reliefs from the Memphite tomb of Haremhab are divided in the collections of three museums. The list might be continued indefinitely.

assuming that the rest of his equipment must have been of a very magnificent kind.

We have seen the promotion of Amenophis from one office to another. His title of Hereditary Prince he bore by birthright, but the other titles were bestowed upon him by the king. He was made Royal Scribe and then Scribe of the Recruits, and on his colossal statue he is also called General in addition to these titles. His most important position, however, was that of Chief of all Works. He specifically states in the account of his promotion that he made statues of the king. Amongst these was one which measured 40 cubits, and it was transported by river and erected at Thebes. In the text the word 'statue' is, by error, written with the determinative of the plural, but the pronouns relating to it are in the singular number. Overlooking this latter point and relying on the writing 'statues' it was formerly supposed by some writers that the two great statues of Amenophis III—the celebrated Colossi of Memnon—are here referred to, and that consequently Amenophis was their architect. Breasted believes that the colossus of Amenophis III which stands before the pylon of Haremhab at Karnak is meant. This statue is about 15 m. in height, and, as he points out, the text does not state that the statue was 40 cubits high, but that the block in the quarry was 40 cubits *long*.[1] An inscription on one of the more recently discovered statues, however, favours the probability that Amenophis was indeed the architect of the Colossi of Memnon. Here 'statues' is clearly written in the plural, and the related pronouns are likewise in the plural.[2] As the text specifically mentions these 'great monuments in the form of Statues of His Majesty', and that 'they rested in their places on the

[1] J. H. Breasted, *Ancient Records of Egypt*, vol. ii, p. 376, notes *a* and *b*.

[2] See the hieroglyphic text, *Annales du Service*, vol. xiv, p. 18.

West ', it seems probable, as Legrain has pointed out, that the Colossi of Memnon are referred to.[1]

The Egyptians were naturally very proud of their great feats in the transport and erection of vast monuments. The well-known cases of the Obelisks of Queen Hatshepsowet and the Colossus of El Bersheh will at once occur to the mind. Many other instances could be added to these. Amenophis has been stated to be the architect of the original temple of Deir el Medineh, which stood on the spot now occupied by the Ptolemaic building. For this opinion, however, there is no foundation, and it is based upon the misunderstanding of a passage in the Decree with which we shall presently deal.[2] It is a possible and even probable supposition that most of the building operations of Amenophis III were planned and carried out by Amenophis the son of Hapu in his capacity of minister of works, but the fact remains that we have not at present any documentary evidence which enables us to say definitely that this or that work was due to him.

As Amenophis III reigned for thirty-five years, and as Amenophis the son of Hapu reached the age of eighty before the end of that reign, he must have been of middle age at the time of the king's accession. Only one of his statues represents him as an old man, but it does not necessarily follow that the others are earlier. It must always be remembered that to the Egyptians statues were not lifeless figures of wood or stone ; they were animated by the *ka* or ' personality ' of the person portrayed. It was for this reason that the artist strove to make them faithful likenesses of their models. ' Soon, however, the

[1] *Annales du Service*, vol. xiv, p. 22.

[2] H. Brugsch, *Zeitschrift für ägyptische Sprache*, vol. xiii (1875), p. 125 ; K. Sethe, *Festschrift für Georg Ebers* (Leipsic, 1897), p. 110, has pointed out the error of this opinion ; the error is nevertheless repeated by E. A. W. Budge, *History of Egypt*, vol. v (London, 1902), p. 108.

same interested motive which had induced it [Art] to carve faithful portraits, led it to disregard this exactitude in certain points. It was of course necessary that the *Doubles* should find their fictitious bodies sufficiently like their actual ones to feel at ease in them; but their second existence would hardly have seemed a blessing to them, had they been condemned to spend it with limbs weakened by all the infirmities of old age. By substituting for the sickly or decrepit reality the figure of the individual as he was in his youth, or in the vigour of his maturity, the artist conferred on him more certainly the full enjoyment of his strength and faculties. This is why there are so few statues of old men before the Saite period; even when a centenarian was represented, Amenophis the son of Hapu, or Ramesses II, their portraits are not very different to (*sic*) what they must have been in their youth.' [1]

The statue which bears the inscription relating to the *sed*-festival of Amenophis III was evidently made long after the event, as it specifies the *first sed*-festival of the king, which would not have been so designated had it been inscribed immediately after the event; nor is it likely that Amenophis would have obtained the honour of being allowed to set up effigies of himself in the temple of Karnak until he had reached the height of his fame. It has already been pointed out that he was far from young at the accession of his patron, and it is therefore probable that he began his official career under the two preceding kings, Amenophis II and Tuthmosis IV.

It is quite evident from the favours he received and from the fact that not less than five statues of him were erected in the temple during his lifetime, that Amenophis was a man of exceptional merit. His appointment to act

[1] G. Maspero, *Art in Egypt* (*Ars Una*) (London, 1921), p. 297. For the animation of statues, see J. Capart, *Egyptian Art* [transl. by W. R. Dawson] (London, 1923), pp. 164 sq.

as intermediary between mortals and their god foreshadows the belief, expressed in later times, that he was of semi-divine nature. This fact must have paved the way for his posthumous celebrity and subsequent deification to be considered in the next section.

. . . . .

How long after his death Amenophis retained unimpaired his reputation as an intermediary between the god Amūn and his suppliants there is no means of knowing. Under the successor of his patron, his namesake Amenophis IV, there arose the great religious revolution that placed Amūn and his devotees, at least for a time, into the background. A new capital was founded at Tell el Amarna, which became, for the short time it lasted, the political and religious centre of Egypt. After the death of Amenophis IV, who had in the meantime changed his name to Akhenaten, his successors forsook his teaching and his capital and returned to Thebes and to the orthodoxy of the worship of Amūn. It was the triumph of Amūn and his priests, and under the Pharaohs Tutankhamen, Ai, and Haremhab the worship of Amūn regained its supremacy. Haremhab extended the temple of Karnak, and placed therein statues of himself. It was at the foot of a colossus of this king that Legrain unearthed the two seated statues of Amenophis in 1913; so it would seem that he too regained his prestige, and his statues were moved from whatever position they had thitherto occupied and placed next to that of the reigning monarch.

There are no records whatever relating to Amenophis dating from the Nineteenth Dynasty, when Sethos I and Ramesses II occupied the throne, nor from the period of the Ramesside kings who made up the Twentieth Dynasty. Towards the close of that Dynasty the high priests of

Amūn became more and more powerful, until one of them, Hrihor, took the reins into his own hands, inscribed his name in the royal cartouche, and mounted the throne of the Pharaohs as the founder of the Twenty-first Theban Dynasty. We must not digress into any discussion, however brief, of this remarkable period, but confine ourselves to taking up the threads of the history of Amenophis from the point at which we lost them at the end of the Eighteenth Dynasty.

Many years ago the British Museum acquired a remarkable document written in hieratic characters upon a limestone tablet, in the form of a decree of Amenophis the son of Hapu, dated in the thirty-first year of Amenophis III. It was at first taken for granted that this monument was contemporary with the events it records, but in more recent years scholars have believed it to be a late copy of a contemporary original. As the fame of Amenophis became prominent under the Ptolemies, as will presently be seen, the decree was believed to be a Ptolemaic copy of a lost Eighteenth Dynasty original.[1] In 1910 the late Dr. Möller, the foremost authority on hieratic palaeography, submitted the document to a minute study, and on palaeographical as well as philological grounds proved that the text was not a Ptolemaic copy, nor even a copy at all, but a forgery of the Twenty-first Dynasty.[2] It was a pious 'fake' made by the priests of Amūn to bring into prominence the memory of a notable devotee of their god, the

[1] First published in transcription by Samuel Birch in F. Chabas, *Mélanges Égyptologiques*, 2nd ser., vol. ii, pp. 324–43. Facsimile in S. Birch, *Inscriptions in the Hieratic and Demotic Character* (London, 1868), pl. 29. Photograph in Budge, *Guide to the Egyptian Galleries (Sculpture) in the British Museum* (1909), pl. 15. Translated by H. Brugsch, *Zeitschrift für ägyptische Sprache*, vol. xiii (1875), pp. 123 sq, and by J. H. Breasted, *Ancient Records of Egypt*, vol. ii, pp. 377–9, §§ 922–7.

[2] G. Möller, 'Das Dekret des Amenophis des Sohnes des Hapu', *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, vol. xlvii (Berlin, 1910), pp. 932–48.

recollection of whom had fallen into abeyance. This forgery is not without parallel. The story of Wenamen, an official of Hrihor, who was dispatched to Syria, and who had a parlous and adventurous journey, is drawn up in the form of an official report of the officer to his king, and gives a detailed narrative of his adventures. Although at first it was generally considered an authentic, historical document, Maspero formed quite a different opinion. 'Without doubt it is an attempt to bring into prominence a form of Amon that bore that title [Amon of the Road], which was supposed to protect travellers in foreign countries. . . . It formed part of the official charter of this Amon, and the redactor has borrowed the historical mannerisms necessary to give it an appearance of probability to documents of this nature.'[1] In the same way the priests of Khons, at a later period, strove to bring their god and his priesthood prominently forward and to invest him with greater antiquity and prestige, by drawing up a stela recording how he had delivered a princess from a possessing spirit under one of the Ramesside kings. Professor Erman was the first to discern the artifice; he removed the text from the place it had hitherto occupied as an historical document of one of the Ramesside kings and placed it in its true orientation as a priestly forgery made some centuries later.[2]

The Decree of Amenophis purports to be an edict dated in the thirty-first year of Amenophis III to establish in legal form the tomb-chapel endowment of Amenophis, and it was read to an assembled company in the temple in the presence of the king, with his vizier and other high officials. After the preamble, the decree begins as follows:

'Hear the command which is given, to furnish the

[1] G. Maspero, *The Popular Stories of Ancient Egypt* (London, 1915), p. 203.

[2] A. Erman, *Zeitschrift für ägyptische Sprache*, vol. xxi (1883), pp. 54–60; G. Maspero, op. cit., p. 173.

*ka*-chapel of the hereditary prince, the royal scribe, Amenhotep, called Huy, son of Hapu, whose excellence is extolled, in order to perpetuate his *ka*-chapel with slaves, male and female, for ever: son to son, heir to heir; in order that none trespass upon it for ever. It is commended to Amon-Re, king of gods, as long as it is upon earth; he is king of eternity, he is protector of the dead.' [1]

A long and remarkable passage follows, calling down curses upon all and any who shall allow the chapel to fall into decay, or shall misappropriate the endowment. Neglect of duty in this respect will incur the immediate displeasure and wrath of the king, who will deprive the malefactor of his office and inflict dire punishment upon him. If any such there be they shall be slain, and their bodies dishonoured and deprived of the advantages of proper burial, and the curse shall pass from father to son. If any of the officials present at the reading of the decree shall disregard it, they shall be especially liable to its penalties.[2]

The following sections of the decree promise the highest favours to all that shall perform their trust. They shall be rewarded and promoted by the king, and their bodies shall repose in the necropolis of the West after a life of 110 years. The final clauses are addressed to the necropolis police, who are bidden to exercise the greatest vigilance, under the threat of death, but with the reward of goodly burial if faithful to their trust.

Contracts were often made with the mortuary priests to perform the necessary ceremonies for the *ka* of the dead man and to supply the requisite offerings, and contracts

[1] J. H. Breasted, *Ancient Records of Egypt*, vol. ii, p. 378, § 924.

[2] A similar series of penalties and curses is detailed in the stela of Antef V, discovered at Coptos, which deposes a nomarch from office (W. M. F. Petrie, *Koptos* (London, 1896), pl. vii, and translation by Griffith, p. 10).

were even entered into with the god Amūn under the priest-kings of the Twenty-first Dynasty.[1] This decree of Amenophis, however, in its legal form, its royal patronage, and its dire retribution on all who may transgress its terms, stands quite alone. It was formerly understood to refer to the establishment of the temple of Deir el Medineh, but this erroneous view has long since been abandoned.[2]

After this sporadic document of the Twenty-first Dynasty there is no further record of Amenophis until the time of the Ptolemies is reached. In spite of the lack of documents, his reputation must have not only continued unbroken, but increased, and Amenophis once more reappears on the scene, not as a mere mortal, but as a god.

Mention may here be made of a document contained in a demotic papyrus at Berlin which was cited some years ago by Spiegelberg.[3] Professor Griffith kindly gave me the following note concerning this: 'Pap. 3111 is a sale of land at Thebes in the sixth year of Ptolemy VI (176 B.C.) by a certain Ammonius to Amenhotp, an "Opener" (Pastophorus) of the cemetery of ibis and hawks, priest and pastophorus of the house (?) of all the title-deeds (?) of the royal scribe Amenhotp son of Hape. That is all. I do not know what is meant by his title-deeds exactly.'

In certain temples of the Ptolemaic period Amenophis is to be found associated with the traditional gods of Egypt in company with Imhotep, the physician and architect who flourished in the time of King Zoser.

(1) *Temple of Ptah, Karnak.*—This temple, which lies to

[1] Such is the contract in the papyrus of Eskhons, published by G. Maspero, *Les Momies Royales de Deir el Bahari* (Paris, 1889), pp. 594–614. Other similar documents of the same kind and period are known.

[2] H. Brugsch, *Zeitschrift für ägyptische Sprache*, vol. xiii (1875), p. 123. The error was corrected by Sethe, *Festschrift für Georg Ebers* (1897), pp. 110–12, but it was nevertheless repeated in some subsequent works, e.g. by Budge, *History of Egypt*, vol. iv (London, 1902), p. 108.

[3] W. Spiegelberg, *Recueil de Travaux*, vol. xxiii (Paris, 1901), p. 98.

the north of the great temple of Amūn and within its boundary walls was built by Tuthmosis III and enlarged under the Ethiopian and Ptolemaic Dynasties. On a large bas-relief is depicted a scene in which, behind Ptah, Hathor, Samtawi, and Imhotep is represented 'the Royal Scribe, Scribe of the Recruits, Amenophis, justified, son of Hapu, the servant of Amūn who loves him'. He holds in his right hand a scribe's palette, and in his left a roll of papyrus and the symbol of life. On the south side of the northern boundary wall of the temple of Amūn, are three reliefs representing Ptolemy XI venerating a series of gods, which includes Amūn, Mut, and Khons, the Theban Triad, and in the last division, Imhotep and Amenophis the son of Hapu.[1]

(2) *Temple of Thoth at Medinet Habu.*—This was built by Ptolemy IX (Euergetes II), and on the wall of the second of its three chambers the king is portrayed sacrificing to Thoth, Imhotep, and Amenophis. The latter addresses the king with the words, 'I banish all sickness from thy body.'[2]

(3) *Temple of Deir el Medineh.*—This temple was founded by Ptolemy IV and completed by Ptolemy IX. On the pillars of the pronaos are represented Imhotep and Amenophis. An inscription says of the latter, 'His name shall endure for ever, his sayings shall not perish.'[3] On the walls of the chamber the king is seen sacrificing to various deities.[4]

(4) *Temple of Kasr el Agouz.*—This temple also was built by Ptolemy IX, and is a small unfinished structure consisting of a vestibule and three chambers. On the left entrance-wall of the second chamber Ptolemy IX pays homage to Thoth, Imhotep, and Amenophis. The temple

[1] G. Legrain, *Annales du Service*, vol. xiv (Cairo, 1914), p. 20; U. Bouriant, *Recueil de Travaux*, vol. xiii (Paris, 1891), p. 169.
[2] Lepsius, *Denkmäler*, Abth. iv, pl 32c.
[3] *Zeitschrift für ägyptische Sprache*, vol. xiii (1875), p. 125.
[4] *Description de l'Egypte, Antiquités*, vol. ii, pls. 34–7.

is situated some distance to the south of Medinet Habu, not far from the ruins of the palace of Amenophis III.[1]

(5) *Ptolemaic Chamber in the Great Temple of Deir el Bahari.*—This chamber, likewise built by Ptolemy IX, was dedicated to Imhotep, here called the son of Ptah, and to Amenophis, who has likewise exchanged his earthly father Hapu for Apis, the sacred bull, whence he was called by the Greeks Amenophis son of Paapis.[2] There are two scenes; in the first, Imhotep, followed by six deities, plays the predominating part. In the second, Amenophis is the principal figure. He wears the long priestly robe, and holds in his right hand an emblem resembling the hieroglyph *nfr*. In his left hand he holds a papyrus roll and the symbol of life. Behind him are five deities, the first of which is Hathor, who is called 'the divine mother of the great god', and replaces Iatu, the earthly mother of Amenophis.[3]

It will be noted that in these scenes Amenophis is always associated with Imhotep. The cult of Amenophis, however, seems to have been confined to Thebes, whilst that of Imhotep was more widespread: he had a temple of his own, for instance, at Philae. Maspero's suggestion that Amenophis was deified by the Thebans in order to place a purely Theban hero side by side with the Memphite Imhotep is worthy of the fullest consideration.[4] During his lifetime, Amenophis was not a physician, although in late times he was especially associated with medicine. In addition to the inscription at Medinet Habu mentioned above (p. 72) an interesting series of graffiti in the Ptolemaic chamber at Deir el Bahari makes this connexion very

[1] D. Mallet, *Le Kasr el Agouz*, forming vol. xi of the *Mémoires de l'Institut Français d'Archéologie Orientale* (Cairo, 1909). See especially p. 38.

[2] The identity of Hapu and Paapis was pointed out by A. Erman, *Zeitschrift für ägyptische Sprache*, vol. xv (1877), p. 47.

[3] E. Naville, *Deir el Bahari*, pt. v (London, 1906), pls. 159, 160.

[4] *Études de Mythologie*, etc., vol. viii (Paris, 1916), p. 131.

apparent. From these graffiti, as well as from certain other texts, it appears that Amenophis was consulted by the sick and that cures were administered by his oracle. A demotic ostracon, published by Sir Herbert Thompson, and which he considers to be of mid-Ptolemaic date, is quite definitely medical. It reads as follows :

' Imouthes says to Horus son of Nes . . . I have caused inquiry to be made of the great god Amenhotep. He has given the oracle that there is a fever in the body of Teos the son of Psenamenunis. He has given him two Syrian figs and they are to be sprinkled with water from evening till dawn, and it is to be stopped and their fluid taken ; and it is to be put on a vessel (?) of broken bread and they are to be mixed up, and he is to drink (?) this, and he is to do it for four days. He (the god) has given him a . . . and a serpent of iron to bind on his arm. There is no deception in it. Signed —— [1]

A fragment of an offering-table acquired by Professor Spiegelberg in Luxor in 1911 has a demotic inscription inscribed upon it which reads : ' Amenophis son of Hapu give life to N.' [2] The Deir el Bahari graffiti are equally interesting. From them it appears that the chamber became a regular resort of the sick, who recorded their gratitude on the walls. The usual formulae are ' Homage of M. to the lord god Asklepios ' ; ' N. came to worship the great god Asklepios ', usually with the addition of the name of Amenophis, and sometimes that of Hygieia.[3] Some of the inscriptions are less formal and more original : ' Andromachus, a Macedonian, a worker for hire, came to

[1] *Proceedings of the Society of Biblical Archaeology*, vol. xxxv, (1913), p. 96.

[2] *Zeitschrift für ägyptische Sprache*, vol. l (1912), p. 47.

[3] J. G. Milne, ' The Sanatorium at Dêr el Bahri ', in the *Journal of Egyptian Archaeology*, vol. i (1914), pp. 96–8 and pls. 12, 13.

the good god Amenothes: he was sick and the god succoured him on that very day, Farewell.' Or again: 'Eugraphios offers his homage before the lord god Asklepios and Amenothes and Hygieia: be mindful of us and grant us healing.' Mr. Milne believes that the sanatorium continued in use until the second century A.D.[1]

Wealthier people recorded their gratitude to the god in a more permanent form than these rough scratchings upon the walls. As evidence of this reference may be made to the stela, also from Deir el Bahari, and now in the Cairo Museum, which was dedicated to Amenophis by Leon and Lysandra his wife, in gratitude for the recovery of their child.[2] Perhaps Amenophis acquired his reputation for medicine from his association with Imhotep; but for the Egyptians wisdom and learning always implied proficiency in magic, and magic and medicine were very closely related.

In the inscription in the temple of Deir el Medineh the 'sayings' of Amenophis are referred to. Apparently no Egyptian text has yet come to light that can be definitely attributed to Amenophis. We have nothing associated with his name comparable to the 'Instruction' of Ptahhotp, Ani, Dawef, and others. A late funerary papyrus in the Louvre contains, *inter alia*, some magical jargon, that purports to be a spell composed by Amenophis the son of Hapu for his own protection.[3] Another passage in the same papyrus is attributed to Khamwēse, a son of Ramesses II, who acquired a great reputation for his wisdom in late times, as already mentioned.[4] The attribution of magical or religious spells to famous men of former ages

[1] J. G. Milne, op. cit. The above translations are quoted from this article.

[2] J. G. Milne, *Greek Inscriptions* (*Cairo Museum General Catalogue*) (1905), p. 37 and pl. 4, No. 9304.

[3] G. Maspero, *Mémoire sur Quelques Papyrus du Louvre* (Paris, 1875), p. 58.

[4] T. Deveria, *Catalogue des Manuscripts Egyptiens . . . du Louvre* (Paris, 1881), p. 107, No. 3428.

was a common artifice amongst the Egyptian priests, intended to enhance the value of their texts, and is a pious fraud of the kind already referred to. It cannot therefore be supposed that Amenophis really had anything to do with the composition of the spells attributed to him in later years.[1] A reference occurs in the Ritual of Embalming to 'The Book of Amenophis', and Maspero believed that the Louvre papyrus above mentioned was the book in question. There seems to be no evidence, however, to support this conclusion.[2] The inscriptions that accompany the scenes in the temple of Ptah at Karnak have been supposed by some writers to be attributable to Amenophis. Here again the proof is lacking. These inscriptions were written on the walls, one in the time of Ptolemy XI, the other in the time of Tiberius. The only scrap of writing which can then with any probability be attributed to Amenophis is a short text, written in Greek upon an ostracon, and found at Deir el Bahari. This little text consists of nine short utterances or aphorisms, all damaged, bearing the title Ἀμενώπου ὑποθῆκαι. Professor Wilcken, who has published the text, has found three of these sayings amongst the 'Sayings of the Seven Wise Men'.[3] Although there are other candidates, the seven sages are generally understood to be: Thales of Miletus, Solon of Athens, Bias of Priene, Chilon of Sparta, Pittacus of Mitylene, Periander of Corinth, and Cleobulus of Lindus. These men flourished in the sixth and seventh centuries

[1] Rubrics attribute certain spells of the *Book of the Dead* to the Fourth Dynasty. A passage in the *Ebers Papyrus* is likewise claimed as having come down from a king of the First Dynasty. Similar instances in late funerary papyri have been noted by Sir Peter Lepage Renouf, *Life-Work*, vol. ii (Paris, 1903), pp. 385–99.

[2] G. Maspero, op. cit., p. 23.

[3] *Aegyptiaca: Festschrift für Georg Ebers* (Leipsic, 1897), pp. 142–5. This ostracon dates from the third century before Christ, according to Wilcken. In addition to the editions cited by Wilcken, see F. G. A. Mullach, *Fragmenta Philosophorum Graecorum* (Paris, 1860), vol. i, p. 203 sq.

before Christ, and had great influence in their respective cities as sages and legislators, their reputation extending throughout the Hellenistic world. The sayings attributed to them are in some cases borrowed attributions, as even this fragmentary ostracon testifies. How far they are indebted to Egypt is an interesting question.

Reference must now be made to the allusion to Amenophis the son of Hapu in the writings of the historian Manetho, as handed down to us by Josephus. Manetho relates that the Pharaoh Amenophis wished to behold the gods face to face, as his predecessors had done. He communicated his desire to Amenophis the son of Paapis 'one that seemed to partake of a divine nature, both as to wisdom and the knowledge of futurities'.[1] The sage informed the king that he must first rid the country of all lepers and impure people, and acting on this advice the king collected some eighty thousand persons and set them to work in the quarries on the east side of the Nile in order to separate them entirely from the Egyptians. After enduring great hardships, these captives begged the king to set aside for them the city of Avaris, which had been deserted since the expulsion of the Hyksos, a request which was granted. Amenophis the sage foretold that these exiles would receive assistance and would conquer Egypt, and having made this prophecy, he slew himself and made the king disconsolate. Events turned out accordingly: the exiles and their allies overran Egypt for thirteen years and the king was obliged to flee to Nubia. Here he gathered forces, and drove the invaders out. Such is the outline of the story as told in Josephus, but a variant of it proves that Manetho had confused an Egyptian story

[1] Θείας δοκῶν μετεσκέναι φύσεως κατά τε σοφίαν καὶ πρόγνωσιν τῶν ἐσομένων, Manetho in Josephus, *Contra Apionen*, i, 26, § 232; Dindorf, *Flavii Josephi Opera* (Paris, 1847) vol. ii, pp. 358–9; Whiston, *The Works of Flavius Josephus* (London, 1825) vol. ii, pp. 539–40.

with the Hebrew traditions. The story has come down to us in two fragmentary papyri of the second and third centuries A.D.,[1] which, as Maspero gives good reasons for believing, were probably derived from a Ptolemaic copy of a native Egyptian story.[2] In this narrative we have the prophecy to King Amenophis by itself, and, as Maspero has pointed out, it is evidently this story, confused with Hebraic traditions, that Manetho embodied in his History. Here it is stated that a prophecy was made, not by Amenophis the son of Paapis, but by a potter. This potter was arrested upon a charge of blasphemy, and when the police laid hands on him in his workshop he fell into a trance. Whilst in that state he uttered a prophecy in which he predicted that stormy times were in store for Egypt, that the country would be invaded by a strange people assisted by the Syrians, that the temples would be desolated, and that the king would have to fly for refuge to Nubia. This terrible period would be accompanied by various convulsions of nature. The storm and stress was, however, to be succeeded by a period of unprecedented prosperity. The police, instead of bringing their captive to justice, led him before the king, in whose presence he repeated his harangue, then fell dead. The Pharaoh was much impressed by the prophecy, and was disconsolate when the prophet cut short his discourse in so tragic a manner. Orders were given that his body should be embalmed and buried at Heliopolis, and a copy of his prophecy was drawn up and placed among the royal archives.

[1] These fragments were published by C. Wessely, *Neue griechische Zauberpapyrus* (Vienna, 1893) p. 399. The text was commented upon by Dr. Ulric Wilcken in *Aegyptiaca : Festschrift für Georg Ebers* (1897), pp. 146–52. The same scholar undertook a new study of the papyrus, with many improved readings in *Hermes*, vol. xl (1905), pp. 544–60. See also G. Maspero, ' Comment un Ministre devint Dieu en Egypte ', in *Causieres d'Egypte* (Paris, 1907), pp. 224 sq., and *Études de Mythologie*, etc., vol. vi (Paris, 1912), pp. 315 sq.

[2] G. Maspero, *Études des Mythologie*, etc., vol. vi, pp. 316–17.

Such is the story, and it is not unnatural that Manetho, to whom it must have been familiar, should substitute for the unknown potter, the sage whose fame under the Pharaoh Amenophis III was so well known, and adapt one series of events to meet the case of another.

From the documents dealt with in the above paragraphs the fame of Amenophis the son of Hapu has been traced over a period of a dozen centuries. There are many gaps in the story, but it may be hoped that future discoveries will fill these voids and enable us to trace step by step the stages which his reputation and fame passed through in the long period between his manhood and his deification.[1] The Egyptians for long ages must have resorted to him for communion with their god, for the hard granite statues found by Legrain in 1913 were worn and polished by touch of the thousands of suppliants who had placed their hands on his effigy whilst they invoked his aid.[2]

[1] His actual deification was probably not anterior to the time of Ptolemy IX. Manetho, who lived in the time of Ptolemy II, Philadelphus, does not speak of him as a god.

[2] Compare p. 82 of this volume.

## CHAPTER IV

# NOSE-RUBBING AND SALUTATIONS

'The future couple sent certain pledges one to another, which, most commonly, they themselves afterwards being present, would confirm with a religious kisse.'

William Vaughan, *The Golden Grove* (1600).

'And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul.'—*Genesis* ii. 7.

MUCH has been written on the subject of salutations in general,[1] and on a specialized form of salutation —the kiss—in particular,[2] and it may therefore be considered superfluous to say any more on the subject. It is useful, however, from time to time to take stock of the available materials in any subject, however well worn, as such revision may lead to new suggestions and interpretations. Of the authors whose works have been consulted by the present writer, none seems to be aware of the

[1] E. B. Tylor, *Researches into the Early History of Mankind* (London, 1865), pp. 45 sq.; idem, art. 'Salutations', *Encyclopaedia Britannica*, 9th ed. (1875–89), reprinted in the 11th ed. (1910–11), vol. xxiv, pp. 94–6; H. Ling Roth, 'On Salutations', *Journal of the Anthropological Institute*, vol. xix (London, 1890), pp. 164–81; Garrick Mallery, 'Greeting by Gesture', *Popular Science Monthly*, February and March, 1891, reprinted as pamphlet of 32 pp. (New York, 1891); Georg Friederici, *Der Tränegruss der Indianer* (Leipsic, 1907); etc.

[2] P. D'Enjoy, 'Le Baiser en Europe et en Chine', *Bulletins de la Societé d'Anthropologie de Paris*, 4th ser., vol. viii (Paris, 1897), pp. 181 sq.; C. Nyrop, *The Kiss and its History* (London, 1901); H. Thurston, art. 'Kiss', *Catholic Encyclopaedia* (New York, 1910), vol. viii, pp. 663 sq.; J. Jacobs, art. 'Kiss and Kissing', *Jewish Encyclopaedia* (New York, 1925), vol. vii, p. 515; E. Crawley, art. 'Kissing', *Hastings' Encyclopaedia of Religion and Ethics*, vol. vii (Edinburgh, 1914), pp. 739 sq.; reprinted with modifications in the 2nd ed. of the same author's *Mystic Rose* (London, 1927), vol. i, pp. 338 sq., and in *Studies in Savages and Sex* (London, 1929), pp. 113 sq. (ed. T. Besterman).

earliest body of evidence on the subject of salutations—the ancient Egyptian texts. As these texts furnish important data, it will be appropriate to begin with a discussion of this very ancient material before passing on to a brief survey of the subject generally. This essay is concerned only with salutations by gesture ; spoken greetings do not come within its scope.

In the oldest body of literature in the world, the long funerary inscriptions that cover the walls of the pyramid-chambers of the Egyptian kings of the Fifth and Sixth Dynasties, now generally known as the *Pyramid Texts*, there is a frequent expression that is commonly translated by such terms as ' salute ', ' great ', ' pay homage ', etc., which in Egyptian is *nḏ ḥr*, and means, literally, ' rubbing the face '. The expression survived throughout the Pharaonic period, and is common in texts of later periods. Now the verb *nḏ*, in its usual sense, means ' to rub ', and it is frequent, for instance, in the medical papyri in the directions for preparing drugs, its signification in such contexts being to ' rub down ', ' reduce ', or ' bray '. The early form of greeting, therefore, the expression *nḏ ḥr*, quite clearly means ' to rub the face '.[1] Before passing on it may be mentioned that there is a similar expression *nḏ r*$^{3}$, ' rubbing the mouth ', which means, ' to question ', ' to demand information ', and a derived noun means ' counsel ', ' advice '. The verb *nḏ* with the determinative of speech was later used as a term of greeting, and in Egyptian letters it is a common epistolary phrase implying polite inquiry as to the health of the addressee of the letter.

Another Egyptian word used for salutation or greeting is *sn*, and this has a *nose* as determinative. The word in its primitive sense means ' to smell '. As a salutation it

[1] G. Maspero, *Études de Mythologie et d'Archéologie*, vol. v (Paris, 1911), pp. 455–7 ; A. Erman and H. Grapow, *Wörterbuch der Ägyptischen Sprache*, Bd. ii (Leipsic, 1928), p. 372 ; L. Speleers, *Les Textes des Pyramides Egyptiennes*, vol. ii (Brussels, 1924), p. 57.

was at first ceremonial, and later passed into familiar use, when it is generally translated ' kiss '.

So much for the words themselves: their application must now be discussed. The expression *nḏ ḥr*, ' rub the face ', is used to express a form of salutation to a god or to the king (himself deemed a god). This is significant, for it shows that the salutation was originally a ceremonial act, and the suppliant, in greeting a god, touched the face, or rubbed the face, of the divinity in order to acquire by contact the beneficent influence of the god. In other words, the divine or magical power inherent in the god, or in a statue of the god, could be evoked by rubbing, and Maspero has very aptly cited, by way of comparison, the rubbing of lamps, rings, or other objects in order to obtain magical power from them.[1] Many examples of this procedure occur, for instance, in the *Arabian Nights* stories and in other folk-tales. It was customary in order to obtain proper communion with a god or with an oracle, to place the hand upon the effigy during invocation. The Egyptians, for instance, for long ages resorted to the statues of a famous sage, Amenophis the son of Hapu, for communion with the god Amūn ; the sage acted as intermediary between mortals and the god, and two oracular statues of Amenophis, made of hard granite, that were discovered in 1913 in the temple of Karnak, were worn and polished by the touch of the thousands of suppliants who had placed their hands on the sage's effigy whilst they invoked his aid.[2] Similarly, Cicero has recorded that the lips and beard of the statue of Hercules at Agrigentum were almost worn away by the touch of the devout.[3]

[1] G. Maspero, *Études de Mythologie*, t. v., p. 457.

[2] G. Legrain, *Annales du Service des Antiquités*, vol. xiv (Cairo, 1914), pp. 17–29 ; W. R. Dawson, *Ægyptus*, vol. vii (Milan, 1926), p. 137. As to Amenophis, the son of Hapu, see pp. 49–79 of this volume.

[3] Cicero, *In Verrem*, iv, 43, 94.

In the Egyptian rite of *nḏ ḥr*, 'rubbing the face', the god's effigy was evidently touched by the hand of the suppliant; in the other word for greeting, *sn*, 'smelling', or 'kissing', the contact was made by the nose. A passage in the *Pyramid Texts* is very significant in this connexion. In an utterance that may be rendered 'Geb rejoices at thine approach; he extends his hand to thee; he kisses thee; he fondles thee', the word *sn*, 'kiss' (*lit.*, 'smell'), in two of the three duplicate texts of the passage has as the determinative a *nose*; but the third text, that in the Pyramid of Teti, has, as the determinative of the word, *two noses, tip to tip*.[1] Here we have a very graphic reference to rubbing noses, or touching noses, in an inscription written 4,500 years ago and derived from a far older original. The custom of touching noses as a ceremonial act survived in Egypt probably long after it had passed out of common use. In the numerous bas-reliefs that depict the ritual performed by gods and kings one often finds the king together with one of the divinities actually performing the rite. In the Cairo Museum, for instance, there is a pillar from Karnak on which is represented the Pharaoh Sesostris I (*circa* 1980–1935 B.C., Twelfth Dynasty) touching noses with the god Ptah. The two officiants stand face to face; the god places his right arm around the king's waist, and the king raises his right arm, the palm of his hand touching the back of the god's head.[2] In this symbolic act three gestures can be discerned, two of which became greatly extended in use, and passed from ceremonial to everyday life. The first gesture is the touching of noses; the pressure of the noses brings the lips into contact, which, it seems probable, explains the origin of the second gesture—the kiss; whilst the positions

[1] Kurt Sethe, *Die altägyptischen Pyramidentexte* (Leipsic, 1908–10), Spruch 373, § 656.

[2] G. Maspero, *Guide du Visiteur au Musée du Caire*, 4th ed. (Cairo, 1915), p. 99. fig. 36.

of the arms of the parties foreshadow the more fully developed third gesture—the embrace.

The primitive rite of rubbing the face was the gesture performed by a subordinate to a superior, whilst that of rubbing noses is the act of equal to equal. The king, in his ritual dealings with the gods, was himself a god, and accordingly he is able to perform rites that a lesser personage could not dare to attempt. Instead, perhaps of describing the king and the gods on these ceremonial occasions as absolute equals, it would be better to say that the gods, recognizing the divine nature of the king, condescended in his favour.

The suggestion here proposed that the kiss arose out of the more primitive and formal touching of noses is supported by the fact that the derivative form in course of time assumed a greater importance than the original form, that is to say, contact of the mouth superseded contact of noses. The mouth-kiss became an affectionate, and not a ceremonial, mode of salutation. The original function of the nose is perpetuated in the word *sn*, literally 'smelling', but derivatively 'kissing'. In an Egyptian love-poem, the youth, speaking of his maid, says, 'If I kiss her and her lips are open, I am happy . . .'[1] The kiss had become a token of personal affection probably long before the poem above quoted was written. We do not know, however, when the mouth was first actually used, because the language still retains the old word *sn*, 'smell', and the essence of the gesture conveyed by this word was originally sniffing or inhaling. In a story of the Tanite king Petubastis (745–721 B.C.) that has come down to us in a demotic manuscript of the first century A.D. there is

[1] *Cairo Ostracon*, line 11. This text, which dates from the Nineteenth or Twentieth Dynasty, was first brought to notice by W. Spiegelberg, *Eine neue Sammlung von Liebeslieden* in the collective work, *Aegyptiaca : Festschrift für Georg Ebers* (Leipsic, 1897) ; cf. A. Erman, *The Literature of the Ancient Egyptians*, trans. by A. M. Blackman (London, 1927), p. 244.

a passage that clearly demonstrates that kissing on the mouth had become customary, and that it had developed from the ceremonial ritual of gods into a token of personal affection: 'Pharaoh perceived him, and when he had recognized him, he advanced to the place where he was, he folded him into his arms, he placed his mouth on his mouth, and kissed him at length [*lit.*, 'many hours'] in the manner in which a man salutes his betrothed.' [1]

The little love-poem and the Petubastis story contain the earliest specific Egyptian references to the mouth in kissing that are known to the present writer, but there is great probability that the custom had changed long before any alteration was made in the verbal method of describing it. We still continue to use words that to-day convey quite a different notion from their original and literal signification. Our own word 'salutation', which to-day is often used to express a mute gesture, originally meant a spoken wish for good health; and 'adoration', literally the placing an object to the mouth, is commonly used for worship and veneration without any notion of the use of the mouth: these words are cases in point.[2] Consequently when in the Egyptian tale of the Shipwrecked Sailor the expression is read, 'Thou shalt embrace thy children, thou shalt kiss thy wife',[3] although the old word *sn*, determined by the *nose*, is used, there is not necessarily any justification for translating 'thou shalt smell thy wife'. Similarly in a papyrus containing magical spells for the protection of mothers and babies from evil spirits, we read, 'Dost thou come to kiss [*sn*] this child? I suffer thee not to kiss it!' [4]

[1] G. Maspero, *Popular Stories of Ancient Egypt* (London, 1915), p. 261.

[2] In connexion with this altered use of words, see *Seven Essays Selected from the Works of Herbert Spencer* (London, 1907), p. 93.

[3] *Petersburg Papyrus No. 1115*, lines 133–4; G. Maspero, op. cit., p. 104; A. Erman, op. cit., p. 33.

[4] *Berlin Papyrus No. 3027*, recto, 2, 1–2; cf. p. 14 of this volume.

Here there is no question whatever of a ceremonial nose-gesture, but of a kiss in the ordinary sense of the word.

Embracing was a common form of salutation in Egypt. The word for ' embrace ' *ḳeni*, is determined by two arms in the attitude of embracing, and is quite literal and unequivocal ; we have not here an instance of a transferred meaning as has been noted in the cases of *nḏ ḥr*, ' rubbing the face ', and of *sn*, ' smelling '. Embracing was not only a friendly salutation in daily life and a token of affection between lovers, but was originally also a ceremonial action. When the gods receive the dead king (and later, all the dead), to be one of their number, they take him into their arms, as innumerable Egyptian pictures testify. The desire to embrace became a polite epistolary formula.

No more than a passing mention is necessary of the various gestures of homage or respect revealed by the innumerable Egyptian paintings and bas-reliefs that represent royal audiences. Persons of low degree, captives, and foreign vassals are usually depicted as prostrate on the ground, and their gesture of homage is called in the texts *sn tꜣ*, ' smelling the ground ' or ' kissing the ground '. Court officials usually stand up, but incline their heads and bodies slightly, whilst servants bend forward to a greater degree and place one hand on the knee, or kneel and raise both hands before their faces.[1]

In Egypt, as elsewhere, salutations were made to the dead as well as to the living. In a series of papyri of the New Kingdom (*The Book of the Dead*) many pictures may be found of the last rites performed before the mummy prior to its consignment to the tomb. In these scenes the mummy stands upright, supported or embraced by the embalmer (who wears a jackal-mask and impersonates the god Anubis), and before it kneel the nearest relatives in

[1] For good examples, see A. H. Gardiner, *The Tomb of Huy* (London, 1926), pl. 17, 19, 27, etc.

attitudes of mourning. In the well-known Papyrus of Ani [1] the widow, wearing the blue robe of mourning, is seen crouching before the mummy of her husband, her right hand placed over her head, tears streaming from her eyes, and her lips pressed against the mummy. In the Papyrus of Henūfer [2] the dead man's wife and daughter are shown, the former standing, the latter kneeling; both have their right hands above their heads, but instead of kissing the mummy they place their left hands upon it. Both these papyri, which are typical of many, date from the Nineteenth Dynasty.[3]

The custom of kissing the dead still survives in Europe.

Having now discussed the Egyptian modes of salutation, a brief survey may be made of some instances of the various forms assumed by the custom in other parts of the world. Salutations involving contact will first be dealt with, beginning with the contact of noses.

The custom of joining noses is frequent in Polynesia (the present tense is here used merely in a descriptive sense: many of the customs noted by early travellers are no longer in existence, European habits having superseded them). Amongst the Maoris of New Zealand, 'the *hongi*, or nose-pressing, was the kiss of welcome, and also of mourning and sympathy. The general salutation was a waving of garments and shouts of '*Nau mai! haere-mai!*' ('Welcome! hither!') [4] In the Friendly Islands 'they touch noses, and wonder that we can express affection by wetting one another's faces with our lips,' [5] according to Captain

[1] *British Museum Papyrus No. 10470.*

[2] *British Museum Papyrus No. 9901.*

[3] P. Lepage Renouf, *Facsimile of the Papyrus of Ani* (London, 1890), pl. vi; E. A. W. Budge, *Facsimiles of the Papyri of Hunefer, Anhai*, etc. (London, 1899), pl. vii.

[4] E. Tregear, 'The Maoris of New Zealand', *Journal of the Anthropological Institute*, vol. xix (1890), p. 113.

[5] James Wilson, *Missionary Voyage to the Southern Pacific Ocean* (London, 1799), p. 363.

Wilson. Some further particulars are supplied by Captain Cook: 'They salute strangers much after the manner of the New Zealanders by joining noses, adding, however, the additional ceremony of taking the hand of the person to whom they are paying civilities, rubbing it with a degree of force upon the nose and mouth.' [1] In the Sandwich (or Hawaiian) Islands, also, Cook observes that the natives join noses as a token of friendship.[2] Salutation by nose-contact is often accompanied by smelling or sniffing. Captain Beechey describes one such ceremony: 'The lips are drawn inward between the teeth, the nostrils are distended, and the lungs are widely inflated; with this preparation the face is pushed forward, the noses brought in contact, and the ceremony concludes with a hearty rub, and a vehement exclamation or grunt; and in proportion to the warmth of feeling, the more ardent and disagreeable is the salutation.' [3]

In Melanesia rubbing of noses is apparently not practised, although sniffing as a salutation has been recorded. Codrington says: 'Kissing is not indigenous; to *punpun* is analogous to it, snuffing with the nose, not rubbing noses, and this is not thought proper or becoming to be done, except to children. Rubbing noses is practised in the Polynesian settlements only.' [4] Other writers, however, refer to salute by sniffing without the qualification that it is confined to children.[5] Sniffing without joining noses is not confined to Melanesia: it was formerly the custom in the Fiji Islands; for instance,[6] it is

[1] James Cook *Voyages* (London, 1809), 'Third Voyage', bk. i, ch. 3.
[2] James Cook, op. cit., bk. v, ch. 3.
[3] F. W. Beechey, *Narrative of a Voyage to the Pacific and Beering's Strait* (London, 1831), p. 3.
[4] R. H. Codrington, *The Melanesians* (Oxford, 1891), p. 354.
[5] G. Brown, *Melanesians and Polynesians* (London, 1910), p. 409; G. Turner, *Samoa a Hundred Years Ago and Long Before* (London, 1884), p. 179.
[6] T. Williams, *Fiji and the Fijians*, 2nd ed. (London, 1860), vol. i, p. 153.

practised amongst the Malays, Burmese, and Nicobarese,[1] and elsewhere.[2]

Other forms of salutations by smelling have been recorded. One writer states that in the interior of Fiji, when he left the house in which he had passed the night, his hosts, after various verbal salutations, proceeded to gestures. ' One or two of them then took my hand and smelt it, making rather a noise about it, which is here a very courteous and respectful method of salutation and farewell, but a little surprising at first.' [3]

These instances of salutation by nose-contact and smelling will suffice. Many others will be found in the works of previous authors to which reference has already been made.[4] Various forms of the custom have been recorded from the Malay Peninsula, from southern India, amongst various Mongolian peoples, from the Lapps of Europe, and from certain African tribes.

Turning now to salutation by contact with the mouth, that is to say, to the kiss, it has already been suggested that probably the contact of the lips was derived from the earlier practice of joining noses. This suggestion seems to the writer to be more in accordance with the facts than the highly theoretical explanations that various writers have put forward. Tylor describes the kiss as a salute by tasting ; [5] Nyrop also connects it with taste and with smell ; [6] Denjoy considers it to be derived from biting and suction.[7] Crawley believes the kiss to be ' a special case

[1] E. H. Man, ' The Nicobar Islanders ', *Journal of the Anthropological Institute*, vol. xviii (1889), p. 368.

[2] W. Ellis, *Polynesian Researches*, 2nd ed. (London, 1832), vol. ii, p. 337.

[3] S. Johnson, *Camping Among the Cannibals* (London, 1883), p. 302.

[4] See above, p. 80, note 1.

[5] E. B. Tylor, ' Salutations ', *Encyclopaedia Britannica*, 11th ed., vol. xxiv, p. 94.

[6] op. cit. supra, p. 185.

[7] op. cit. supra, p. 184. For references to this and the last quoted work, see above, p. 80, note 2.

of tactile sensory pleasure': [1] this may be a derivative attribute of the act of kissing, particularly among higher races, but it is certainly not primitive, as the Egyptian evidence already quoted clearly demonstrates.[2] If indeed the kiss really responds to definite psychological and functional laws of the human mind, as certain modern writers have urged, one would expect to find its distribution far more universal than it actually is. The highly theoretical explanations of human conduct and customs by psychological and physiological formulae that many writers are fond of postulating as common to all mankind (this, in itself, is an unwarranted generalization) bring the inquirer no nearer to a true understanding of their origin and development, and merely enshroud the discussion in a fine mist of words. The modern anthropologist seems far too prone to take the human mind of all races and of all periods as a fixed and stable unit; he then proceeds to grade it like a thermometer, speaks of various 'stages' of culture, and taking this custom or that, finds no difficulty in fitting it into his theoretical scheme. His arbitrary assertions he is apt to dignify by the title of 'Natural Laws', and these are, as often as not, 'mere fantasies without substance, into conformity with which all the evidence is forced.' [3] More attention should be paid to the history and distribution of customs and beliefs. Just as in modern times there is a general tendency amongst the natives of various countries, in which the white man's influence has made itself felt, to adopt European customs, so in ancient times the contact of peoples must have had, and demonstrably has had, a profoundly modifying effect wherever one form of

[1] *The Mystic Rose*, 2nd ed. (London, 1927), vol. i, p. 341.

[2] Crawley's view of the kiss may be said to amount to the contrary of that here expressed. He believes the kiss to be a later elaboration of a primitive function, whereas the view here advocated is that modes of salutation are in general degenerate and altered survivals of early ceremonial rites.

[3] G. Elliot Smith, *Conversion in Science* (London, 1928), p. 22.

culture permeated another. Customs are often borrowed without any appreciation whatever of their original significance; they become modified and infinitely varied and invested with new meanings. As the late Dr. Rivers has truly said in speaking of the transmission of culture: 'There is reason to believe, indeed, that the process has been exceedingly complex; that when customs are carried from their original home to other parts of the world, few of them survive unchanged, but suffer profound modification, some in the direction of progress, some in the direction of degeneration, and some in a direction which can hardly be described in terms either of progress or decay. . . . Many customs which were once supposed to be the products of a simple process of evolution among an isolated people have in fact behind them a long and tortuous history.' [1]

There is no need on this occasion to give instances of the various modes of kissing either in their ceremonial or familiar applications; many cases are quoted in the works of the writers already mentioned, and the purpose of the present discussion is to supplement, and not to duplicate, what has already been said.[2] These very instances show the impossibility of attempting to explain them on a uniform psychological basis; derivation and transmission

[1] W. H. R. Rivers, *History and Ethnology* (London, 1922), p. 5.

[2] For references to these works, see above, p. 80, note 2. A few interesting instances of kissing from Greek literature may be added:

αὐτίκα δ' ἥγε
λαιὸν μὲν καθύπερθεν ἐπ' αὐχένος ἄνθετο πῆχυν
κύσσαι ἐπιθύουσα τέρεν στόμα.

'And straightway she laid her left arm about his neck, longing to kiss his tender mouth.'—Apollonius Rhodius, *Argonautica*, i, 1236–8.

Τῶν εἵνεκα οὔτ' ἀνὴρ Αἰγύπτιος οὔτε γυνὴ ἄνδρα Ἕλληνα φιλήσειε ἂν τῷ στόματι.

'Hence no Egyptian man or woman will kiss a Greek on the mouth.'—Herodotus, ii, 41.

See also Apollonius Rhodius, iii, 150; Aristophanes, *Clouds*, 81.

are in many cases too apparent to be ignored or forced into any scheme of ' natural laws '.

Certain forms of salutation by gesture that do not involve either the nose or the mouth may now be briefly considered. Embracing, as noted above, was in Egypt originally a ceremonial gesture that later became a general form of salutation. In its fullest form the custom involved the complete enwrapping of each of the two saluting parties in the arms of the other. From this the linking of arms and the shaking of hands are clearly debased derivatives. The fullest form of embrace, the hug, is not of very wide distribution, although some striking instances occur. In Tierra del Fuego, for instance, Snow related of the natives that ' their mode of salutation was anything but agreeable. The men came and hugged me, very much like the grip of a bear. I felt as if squeezed in a vice '.[1] Embracing is common in Central Asia, as well as in parts of Australia and of Polynesia. It often takes the form of placing the arm around the neck.[2]

Hand-shaking is especially frequent in Africa. It has been recorded by Speke amongst the men of the Karague,[3] and other writers mention the custom amongst the Masai, the Wazare, the Niamniani, the Monbutto, and many other tribes. The rite is often accompanied by cracking or snapping the fingers.[4] According to Moslem custom, the thumbs are brought into contact. Thus Lane speaks of the usage amongst the modern Egyptians ; in the ceremony of joining hands between the bride's proxy and the bridegroom, the parties sit on the ground ' face to face, and grasp each other's right hands, raising the thumbs, and pressing

[1] W. P. Snow, ' The Wild Tribes of Tierra del Fuego ', *Transactions of the Ethnological Society*, new ser., vol. i (1860), p. 263.

[2] H. Ling Roth, ' On Salutations ', *Journal of the Anthropological Institute*, vol. xix (1890), p. 169.

[3] J. H. Speke, *Journal of Discovery of the Source of the Nile* (London, 1863), p. 203.

[4] H. Ling Roth, op. cit., p. 168.

them against each other.' [1] Amongst the Wanika of Mombasa, East Africa, the same custom obtains. Krapf has related how, in shaking hands with a chief, 'he first grasped my hand and pressed his thumb against mine, as is the custom '.[2] Here is a clear instance of the penetration of Moslem influence.

Hand-shaking was evidently practised by the Greeks and Romans. 'And Telamon the son of Aeacus hastened to Jason and grasping his hand in his, embraced him with these words '; [3] 'And Zetes spoke thus, taking the hand of the sorrowing old man '; [4] these are two examples to which many others might be added.[5] Similarly when Aeneas met his father Anchises in the under-world, he said, 'Grant me to grasp thy right hand, grant me this, my father, nor withdraw thee from my embrace.' [6]

The custom of hand-shaking is almost universally performed with the right hand, or with both hands: to use the left hand only is generally considered an insult.

A few miscellaneous methods of salutation by gesture, with or without contact, may now be considered. In Astrolobe Bay, New Guinea, the usual mode of friendly greeting was 'squeezing the nostrils with the forefinger and thumb of the left hand, and pointing to the navel with

[1] E. W. Lane, *Manners and Customs of the Modern Egyptians* (London, 1846), vol. i, p. 219.

[2] J. L. Krapf, *Travels, Researches and Missionary Labours during an Eighteen Years' Residence in Eastern Africa* (London, 1860), p. 138.

[3] ὁ δ'ἐσσυμένως ἐβεβήκει
Αἰακίδης Τελαμὼν ἐς Ἰήσονα, χεῖρα δὲ χειρὶ
ἄκρην ἀμφιβαλὼν προσπτύξατο, φώνησέν τε·
—Apollonius Rhodius, *Argonautica*, i, 1329–31.

[4] ὣδέ τ' ἔειπεν
Ζήτης, ἀσχαλόωντος ἑλὼν χερὶ χεῖρα γέροντος.
—Ibid., ii, 243–4.

[5] e.g., see also ibid., iii, 1068; iv, 99; Aristophanes, *Clouds*, 81, etc.

[6] Da jungere dextram,
Da, genitor, teque amplexa ne subtrahe nostro.
—Virgil, *Aeneid*, vi, 697–8.

the index-finger of the right.' [1] Similarly the Gond people pull one another's ears as a salutation, whilst in the Mariana Islands they stroke the abdomen.[2] Among the Uvinza (Tanganyika), after an elaborate exchange of courtesies, the parties slap their sides and pat their stomachs.[3]

Clapping of hands is a frequent form of salutation, of which Roth gives several instances,[4] whilst the raising of the hand to the head is a form of action similar in nature to the military salute of to-day.

Another form of salutation is that of sprinkling substances over the body, a frequent rite also in ceremonies of mourning. In New Hebrides, and in parts of New Guinea, to sprinkle water with the hand over the head was a form of greeting,[5] whilst elsewhere sand or mud was sprinkled over the body or rubbed on the limbs.[6]

A custom that is now happily falling into disuse is salutation by spitting: it was formerly practised in some parts of Africa.[7]

The Ainu of Japan have very elaborate forms of salutation, and the customs for men and women differ. When two men meet, they sit down, bareheaded, facing one another, rub their hands together, raise them to their foreheads, and stroke their beards. These gestures are not mutual: each party caresses himself without contact

[1] P. Comrie, 'Anthropological Notes in New Guinea', *Journal of the Anthropological Institute*, vol. vi (1877), p. 108.

[2] Garrick Mallery, *Greeting by Gesture* (New York, 1891), p. 4.

[3] V. L. Cameron, *Across Africa* (London, 1877), vol. i, p. 226.

[4] H. Ling Roth, 'On Salutations', op. cit. *supra*, pp. 172–3; H. W. Walker, *Wanderings Among South Sea Savages* (London, 1909), p. 41; etc.

[5] Garrick Mallery, op. cit., p. 5.

[6] D. Livingstone, *Missionary Travels and Researches in South Africa* (London, 1857), pp. 276, 286, 296; V. L. Cameron, op. cit., p. 299; H. Ling Roth, op. cit., p. 174.

[7] H. H. Johnston, *The Uganda Protectorate* (London, 1904), vol. ii, p. 833; A. C. Hollis, *The Masai* (Oxford, 1905), p. 316; H. Ling Roth, op. cit., pp. 179–80.

with the other. Between whiles they exchange polite verbal courtesies. More hand-rubbing ensues; they then rub the lip and nose with the forefinger, and stroke the head. Women only salute men. They stand up, and holding the left arm downwards, they place the right forefinger between the index finger and thumb of the left hand, and draw it up the left arm as far as the shoulder. They then raise both hands to the forehead and rub the lips. Children are greeted by having their heads stroked from the crown to the shoulders. For this ceremony the child stands with his back to the person who is caressing him.[1]

Weeping for joy occurs as a form of salutation. The Biblical instances of this custom are well known,[2] and it is also recorded from many other parts of the world. The Ainu women, when they meet after a parting, weep on one another's necks,[3] and the Andaman Islanders have the same custom both for men and women. Here no salutations are exchanged between friends after parting, but in the case of relatives, after an absence even of a few weeks, they 'testify their joy at meeting by sitting with their arms round each other's necks, and weeping and howling in a manner which would lead a stranger to suppose that some great sorrow had befallen them; and, in point of fact, there is no difference observable between their demonstrations of joy on these occasions and those of grief at the death of one of their number. The crying chorus is started by the women, but the men speedily chime in.'[4] Weeping

[1] H. C. St. John, 'The Ainos: Aborigines of Yeso', *Journal of the Anthropological Institute*, vol. ii (1873), p. 251; J. Batchelor, *The Ainu of Japan* (London, 1892), pp. 101–6.

[2] *Genesis* xliii. 30 sq.; xlv. 2, 14 sq.; 1 *Samuel* xx. 41; *Tobit* vii. 6; etc.

[3] J. Batchelor, op. cit., p. 105.

[4] E. H. Man, 'On the Aboriginal Inhabitants of the Andaman Islands', *Journal of the Anthropological Institute*, vol. xii (1883), pp. 147–8 and pl. ix, fig. 2.

for joy is a custom practised in some parts of India. In a tribe in the Bilaspore district it has been recorded that it is the general practice among the women to weep and wail when long-parted relatives are reunited. Thus when a son who has been away for months returns to his parents' house, 'he will first go and touch the feet of his father and mother. When he has been seated, the mother and sisters come to him, and each in turn, placing both hands on his shoulders, weeps loudly and in a wailing tone narrates anything special that has taken place in his absence.'[1] Similarly amongst the Chauhans (Central Provinces) the women greet one another after a parting by placing their heads on each other's shoulders and weeping copiously.[2] Many instances of this custom amongst the tribes of North and South America have been collected by Dr. Friederici.[3]

In Tahiti, writes Ellis, 'the custom of cutting themselves with shark's teeth, and indulging in loud wailing, was a singular method of receiving a friend, or testifying gladness at his arrival; it was, however, very general when Europeans first arrived'.[4] A similar custom of gashing the face and breast and weeping and howling to welcome a friend was formerly practised in New Zealand.[5]

Brief mention may be made of the various customs that embody holding up an emblem or other object to express greeting. Captain Cook records a number of instances that he met with in Polynesia of the natives holding up a branch of a tree as a token of friendship. Other objects

[1] E. M. Gordon, 'Notes Concerning the People of Mungeli Tahsil, Bilaspore District', *Journal of the Asiatic Society of Bengal*, new ser., vol. i (1905), p. 184.

[2] R. V. Russell, *The Tribes and Castes of the Central Provinces of India* (London, 1916), vol. ii, p. 428.

[3] Georg Friederici, *Der Tränegruss der Indianer* (Leipsic, 1907).

[4] W. Ellis, *Polynesian Researches*, 2nd ed. (London, 1832), vol. ii, p. 337.

[5] R. Burn, quoted by H. Ling Roth, op. cit., p. 179.

were held up for the same purpose: canoe paddles, sticks, and a pole decorated with feathers. Similarly white flags and pieces of cloth are waved as tokens of greeting and goodwill. In Europe to-day the custom is general of waving hats or handkerchiefs as a parting salutation.

The mention of waving hats introduces another series of salutation customs—the uncovering of various parts of the body to show greeting or respect. Such customs, though afterwards adopted as civilities in ordinary life, were probably of ceremonial origin. It is a widespread custom for men, when entering a temple or other holy place, to remove the shoes or sandals from the feet: here the motive is evidently to prevent contamination of the sacred ground by the dust of the outer world. When Jehovah appeared to Moses in the burning bush, He cried: 'Put off thy shoes from off thy feet, for the place whereon thou standest is holy ground',[1] and Joshua was similarly addressed: 'Loose thy shoe from off thy foot, for the place whereon thou standest is holy.'[2] The Moslems to-day take off their shoes when entering mosques that the holy ground may not be defiled. From such religious usages, by a general extension, customs of uncovering passed into daily and secular use. Amongst the Damaras of South Africa it was a customary courtesy to a stranger to remove the sandals before entering his house;[3] the same practice is observed in Morocco, and the idea of respectful salutation is shown in the ancient Peruvian custom of walking barefoot, along the Street of the Sun, and not even the Inca himself would enter the temple of the Sun with his shoes on.[4]

Captain Cook has recorded several instances of uncovering as a mark of greeting or respect. At Tahiti the

[1] *Exodus* iii. 5. [2] *Joshua* v. 15.
[3] C. J. Anderson, *Lake Ngami*, 2nd ed. (London, 1856), p. 231.
[4] W. H. Prescott, *History of the Conquest of Peru*, 2nd ed. (London, 1847), vol. i, p. 97.

natives stripped to the waist, or at least uncovered the head and shoulders. The custom of taking off the hat employed to-day as a civil salutation of men to women is paralleled by the custom of men removing their hats in church whilst women must not uncover their heads. This custom is found in the earliest periods of Christian history, and is certainly pre-Christian in origin.

Such are some of the principal modes of salutation by gesture practised in various parts of the world. As already mentioned, the many cases in which verbal salutations alone, without gesture, are the common modes of greeting, have not been touched upon at all.

The Egyptian evidence brought forward above, by far the oldest available, shows that salutation was originally a magical rite. It comprised the two elements that almost always occur in ancient magical practices—the oral rite and the manual rite; that is to say, words were recited to the accompaniment of some action or gesture. The touching or rubbing of the face, and especially of the nose, was the principal (perhaps, originally, the only) method of imparting or receiving divine or magical essence. This idea remained in ceremonial usage throughout Egyptian history. There are countless pictures on the walls of Egyptian temples that depict the king in the act of being endowed with divine power by the gods. In such pictures, the gods hold the emblems of life, influence, and stability to the nostrils of the Pharaoh. Similarly in the complex ceremonies called 'The Opening of the Mouth' that were performed to animate statues and to reanimate mummies, instruments and offerings were presented to the nose or lips of the effigy or mummy.

The idea of animating an inert body is expressed in the well-known episode of the Hebrew Creation legend: 'And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man

became a living soul.' [1] It may be mentioned, in passing, that there is a very close relationship between the Egyptian, the Chaldean, and the Mosaic cosmogonies, and much evidence to support the conclusion that the two latter were borrowed from the former; this topic, however, does not now concern us. The point is that life, and all it connotes, were imparted by the nostrils. The gods breathed life into the nostrils of man, just as Elisha reanimated a dead child by breathing into its mouth.[2] Conversely, by sniffing or inhaling, a suppliant could draw, from the god into himself, the breath of life, the breath of divine power. From the indications that have been sketched in the foregoing pages it seems quite clear that salutations were originally life-giving ceremonies, and in course of time they became democratized and degenerated into tokens of goodwill and affection between man and

[1] *Genesis* ii. 7.

[2] 2 *Kings* iv. 34. In the same way Ceres revived the dying child Triptolemus. (Ovid, *Fasti*, iv, 540). In this connexion the following remarkable modern instance, kindly sent to me by Miss Edith Durham (in a letter dated 17th June, 1929) is of very great interest. The child of the proprietor of a boarding-house in Hampstead was the subject of the ceremony. Miss Durham writes: 'The child had been neglected by his parents, in spite of warnings of the school doctor, so that he had a number of very bad teeth. They were extracted at the dental hospital, and the father was given a bottle of antiseptic mouth-wash and was told the child's mouth must be washed out very frequently and particularly before and after food. The parents did nothing, and in a few days the wretched child's mouth was badly inflamed and the poor child was in great pain. We (in the boarding-house) heard him crying with pain, and I went to see what was the matter. The father simply said he "didn't hold with" taking out teeth at all. It was not his fault. I then said I could have given him a mouth-wash, and he told me he had a bottleful from the hospital, but he "didn't believe in that sort of thing". I upbraided him for his cruel neglect, and he indignantly replied he had done all he could. He had lain down by the child and breathed into his nose and mouth all he could. He heaved his chest to illustrate the amount of blowing he had done, and said, "If that didn't ease him, I don't know what could."

'I give the tale in detail because in this case the man had had full expert advice as to what to do—but he preferred this prehistoric remedy. This case occurred six years ago.' [Actually in 1922].

and man. Such a process of derivation and degradation has many parallels in human conduct and experience.

In brief, the view here advanced is that salutations originated in the rites of touching the face, touching of noses, smelling, kissing, and embracing practised in very early times in ancient Egypt. These were originally gestures performed by the gods for the benefit of the king, to confer vitality on the living king and to reanimate the dead king. The complex rites relating to the process of mummification had the same origin and the same purpose. To attempt to explain the significance of salutations, and particularly of kissing, by arbitrary formulae based on the supposed danger of contact and the breaking of taboo is, to the writer's mind, to ignore the facts of history and observation. And the study of the geographical distribution of the various modes of salutation (no less than of other customs) is alone fatal to such a hypothesis.

## CHAPTER V

## MOUSE-EATING

'Fry'd mice are very good to eat.'—*English MS.* (1692)

'Thou shalt eat the mouse, the abomination of Rē.'
—*Book of the Dead*, xxxiii.

IT is a curious fact that the mouse is one of the most ancient medicines used by mankind, and it is unique in that there is evidence of its continuous use as a drug for a period of at least six thousand years, and in rural districts it is still employed. How the mouse acquired its reputation as a healer is difficult to decide. A belief existed that the mouse was a spontaneous product of the Nile mud after each successive inundation, and it may be that on this account it was credited with the virtue of being a giver of life, a merit anciently ascribed to the Nile and to all the beneficent effects of its annual flood. The modern Egyptians still believe in the spontaneous generation of mice, and although there appears to be no text of Pharaonic times expressing this notion, a passage of Pliny is worth quoting, as it is obviously coloured by Egyptian ideas, as is so much else in his book: 'All this is supported by the inundation of the Nile, which surpasses all other marvels; for when it recedes, minute mice are to be discovered in a state in which the generative energy of water and of earth is incomplete, so that, while part of their body is alive, the extremity is still a cast of earth.' [1] Diodorus Siculus makes a similar statement: 'This still actually takes place in the province of the Thebaid, where, at certain seasons, vast quantities of mice are spontaneously

[1] Pliny, *Natural History*, ix, 84; Aelian, *De Nat. Anim.*, ii, 56.

engendered, and one is filled with wonder at this happening, for it can be observed that some of these animals are not completely formed except for the foreparts and front feet, but that they can nevertheless move while the rest of their bodies remain formless, and of the same nature as the muddy soil from which they arise.' [1] Diodorus adds that in no other part of the world can such a phenomenon be seen. It was believed for many centuries that mice were engendered in this fashion in Egypt, a fact referred to again and again by the Fathers of the Church and other early Christian writers. But it was also believed that the generative powers of Nile mud reached further than to mice only, for Mela makes the following statement: 'In the summer season the Nile, overflowing its banks, irrigates Egypt with waters so effective for engendering and nourishing life that besides abounding in fishes and producing crocodiles and hippopotamuses, those huge beasts, it even infuses souls into its clods and out of its very loam fashions things of life. The proof is that when the flood abates, we may see on the moist fields animals not yet completed, but in the act of receiving breath, partly formed, partly still of earth.' [2]

The statement of Pomponius Mela embodies in part another ancient and widespread idea: the life-giving property of water. It would take us too far afield to examine this belief in all the forms it assumes; it may merely be noted in passing. The belief in water as the source of life is echoed in the *Koran*, in such passages as these: 'And God created every animal of water'; [3] 'The heavens and the earth were solid, and we clave the same in sunder, and made every living thing of water.' [4]

The prodigious rate at which mice multiply may have suggested these attempted explanations that took the form

[1] Diodorus Siculus, i, 10.
[2] Pomponius Mela, i, 9, 52.
[3] *Al Koran*, xxiv.
[4] Ibid., xxi.

of spontaneous generation. Another ancient belief was that mice could conceive, without sexual intercourse, merely by licking salt.[1] Plutarch, in attempting to account for the divine origin of salt, suggests that this divinity may have arisen because that mineral preserves the body from decay after the soul has taken flight, and because mice conceive merely by licking it.[2]

It will be necessary later on to return to the legends and beliefs relating to the mouse, but its medicinal use must first be considered.

Many of the drugs and remedies used by the ancients and recorded in their medical writings are of so bizarre a nature, that doubts are often entertained as to whether many of them were actually used, despite the written prescriptions that contain them. In the case of the mouse, we do not have to rely solely on literary evidence, for we have the most positive proof that it actually was in very early times medicinally administered. In 1901 Professor George Reisner carried out excavations at Naga ed Dêr in Upper Egypt, in the course of which he found many human bodies belonging to a very ancient period, long before the reign of Mena, the first historical king of Egypt, and the founder of the First Dynasty, the date of which is now generally agreed to be about 3400 B.C. There is much archaeological evidence that the period to which these human remains are to be ascribed may be at least one thousand years earlier. The conditions under which these bodies had been buried, in direct contact with the hot, dry desert sands, have resulted in their complete preservation: they are intact, with the skin, hair, muscles, soft parts and viscera preserved entire by natural desiccation, for they were buried long before the invention of artificial embalming. From

[1] Aristotle, *Historia Animalium*, vi, 37; Plutarch, *Symposiacs*, v, 10; Pliny, *Natural History*, x, 85; Aelian, *De Nat. Anim.*, ix, 3.
[2] Plutarch, loc. cit.

the alimentary canals and intestines of these bodies food materials—the last meals eaten before death—were recovered by Professor Elliot Smith, who handed them on to Dr. Fritz Netolitzky of Czernowitz, who duly examined and reported on them.[1] Remains of mice were found in the bodies of some of the children, concerning which Professor Elliot Smith has written : ' The occasional presence of the remains of mice in the alimentary canals of children, under circumstances which prove that the small rodent had been eaten after being skinned, is a discovery of very great interest, for Dr. Netolitzky informs me that the body of a mouse was the last resort of medical practitioners in the East several millennia later as a remedy for children *in extremis*, as it still is in Europe.' [2]

Here is well-attested evidence of the use of mouse-medicine in Egypt at a period which, by the most reasonable computation, is six thousand years ago, and as it is still common in Europe to administer mice as medicine to children, it will be interesting to make a brief survey of some instances of the medicinal use of mice in the interval which divides these widely separated periods.

Turning first to the oldest medical books that have survived—the Egyptian medical papyri[3]—the mouse is to be found applied to various therapeutic uses. In the Ebers Papyrus, the mouse figures in a prescription for some kind of rheumatoid complaint, ' to relax stiffness '. Here equal parts of the fat of the pig, the mouse, the snake, and the cat, are to be mixed together and applied to the affected part.[4] In another document, among a number of recipes

[1] F. Netolitzky, *Zeitschrift für Untersuchung der Nahrungs- und Genussmittel*, Bd. xxi (Berlin, 1911), pp. 607 sq. ; Bd. xxvi (1913), pp. 425 sq.

[2] G. Elliot Smith, *The Ancient Egyptians*, 2nd ed. (London, 1923), p. 50.

[3] For a general account of these documents, see my *Magician and Leech* (London, 1929), pp. 73 sq.

[4] *Ebers Papyrus*, 85, 5.

for the hair, the following occurs : ' Cooked mouse put in fat until it is rotten : do likewise ' [i.e. anoint the head with it]. [1] A more interesting mention of the mouse is to be found in a magical papyrus in Berlin that contains a number of spells and prescriptions for the protection of mothers and their infants.[2] Among these is an incantation to drive away *sesmi* (some infantile malady), which ends with the words : ' Make this child, or its mother, eat a cooked mouse. Put the bones upon his neck bound with a string in which seven knots have been tied.' [3] This is the earliest *written* record of the mouse as a child's medicine, and it dates from about 1500 B.C.

Dioscorides says : ' It is well known that mice which run about houses can be very usefully cut up and applied to scorpion stings. If children eat them roasted, it helps to stop dribbling at the mouth.' [4] This passage has been the basis of many later statements. Thus the Algerian physician, Abd-ar-Razzaq, who lived sixteen centuries later, evidently borrowed from Dioscorides when he wrote : " Grilled and eaten, it stops dribbling of saliva in children . . . roasted alive and placed upon the sting of a scorpion, it cures it. Applied similarly to splinters and thorns, it draws them out.' [5]

Pliny's *Natural History* abounds in references to the therapeutic use of mice : the whole animal, or parts of it, or its blood or dung, occur again and again. Thus, mice cut open and applied are effective against the bites of serpents (xxix, 25) and scorpion-stings (xxix, 29). The ashes of the head of a mouse, the tail of a mouse, or a mouse entire, is a cure for alopecia (xxix, 34). For ulceration of

[1] *Hearst Medical Papyrus*, 10, 10–11.
[2] See page 14 of this volume.
[3] *Berlin Papyrus, No. 3027*, 8, 2–3.
[4] Dioscorides, *De Materia Medica*, ii, 74.
[5] L. Leclerc, *Kachef Er-Roumoûz* [' The Revelation of Enigmas '], (Paris, 1874).

the head caused by the use of cantharides, apply the head, gall and dung of mice with hellebore and pepper (xxix, 34). The ashes of a mouse, mixed with honey, cure earache (xxix, 30), or rubbed on the teeth, sweeten the breath (xxx, 9). Lung affections are cured by mice, especially African mice, flayed, cooked in oil and salt, and eaten: this preparation is also good for suppuration of pus and for loss of blood (xxx, 14). Cut-open mice are good for gout (xxx, 23); and for all kinds of warts, the blood of a mouse, or the animal itself cut open, are to be used (xxx, 23). To draw out foreign matter such as thorns from the flesh, pply a cut-open mouse (xxx, 42). To cure children who cannot hold their water, make them eat cooked mice (xxx, 47). These are examples selected from among many.

Galen, in one of his books, uses the mouse as a drug (e.g. the blood of a mouse for cataract), but in another, states that he refrains from using such materials for fear of being thought superstitious.[1] Marcellus the Empiric (4th century A.D.) employs the mouse and similar remedies much in the same manner as Pliny.[2]

An Egyptian (Coptic) medical papyrus of the ninth or tenth century, A.D., has an interesting prescription for 'weeping ulcers that remain open. Wax 1 oz., santal 2 oz., unsalted pork lard 1 oz., decoction of cut-open mouse 1 oz.; cook them together and use them for the ulcers.'[3]

In Syriac medicine, the mouse occurs: it is used for scabies and in an ointment for diuretic purposes.[4]

The Arabic physician Ibn el-Beithar of Malaga (twelfth to thirteenth century A.D.) states that mice are believed to be good for warts and for scrofula; for the latter the

[1] L. Thorndike, *History of Magic and Experimental Science* (London, 1923), vol. i, pp. 166, 175.
[2] Ibid., p. 587.
[3] E. Chassinat, *Un Papyrus Médical Copte* (Cairo, 1921), p. 297.
[4] E. A. W. Budge, *Syrian Anatomy, Pathology, and Therapeutics, or the Book of Medicines* (Oxford, 1913), vol. ii, pp. 681, 695, etc.

mouse is split open and applied hot. A decoction of mouse is a cure for dysuria, and its flesh produces a condition of coma and causes nausea. Split open and applied, it draws out splinters and thorns from the flesh. The ashes of a mouse applied with honey are good for alopecia. The Arabic writer cites Dioscorides and Galen as his authorities.[1]

A few examples of the medicinal use of mice may now be selected from the medical writers of Europe. Hildegard of Bingen (1098–1179) uses the mouse for the cure of several diseases. Amongst these is ' the falling sickness ' (epilepsy). For this disease he employs the mouse, ' for inasmuch as the mouse runs away from everything, therefore it drives away the falling disease '. To effect a cure, a mouse is put into a pan of water, which the patient must first drink, and in which he must bathe his face and his feet.[2] Theophrastus Bombast von Hohenheim, generally known by his adoptive name Paracelsus (1493–1541), claimed originality for all his cures and disclaimed the works of his learned predecessors.[3] He publicly burnt the works of Galen, Avicenna, and others before the students in his lecture-room, but nevertheless many of the remedies that he claims as his own were in use centuries before his time. He prescribes the mouse as ' a great Secret for the ptisick '.[4] Nicholas Culpeper (1615–54) states that ' a flea'd [skinned] mouse dried and beaten into a pouder and given at a time helps such as cannot hold their water, or have a Diabetes, if you do the like for three

[1] L. Leclerc, *Traité des Simples par Ibn al Beithar*, s.v., *Jb. Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, t. xxvi (Paris, 1883), p. 17, No. 1652.

[2] L. Thorndike, *History of Magic and Experimental Science* (London, 1923), vol. ii, p. 146.

[3] T. J. Pettigrew, *Superstitions connected with the History and Practice of Medicine and Surgery* (London, 1844), pp. 2–4, Paracelsus boasted of his learning thus : ' Stultissimus pilus occipitis mei plus scit, quam omnes vestri doctores, et calceorum meorum annuli doctiores sunt quam vester Galenus et Avicenna, barba mea plus experta est quam vestrae omnes Academiae.'

[4] *Paracelsus his Dispensatory and Chirurgerie faithfully English'd by W. D.* (London, 1656), p. 128.

days together '.[1] In a manuscript book dated 1692 in the possession of Dr. Rendel Harris there is an interesting entry relating to mice : ' Fry'd mice are very good to eat. And mice flea'd and dry'd to powder mixt with sugar candy is very good for chinn-cough. You must flea the mice when you fry them. These I know to be good.' [2] Nicholas Lemery (1645–1715), a celebrated French chemist, mentions the mouse in his great book of simples, and says : ' Il est estimé propre pour l'incontinence d'urine, étant mangé.' [3]

A curious work was published anonymously in London in 1711 under the title *Arcana Curiosa*. It presents an array of most varied information. In addition to medical prescriptions, it contains directions for making and using varnishes and dyes, for plaster casts, for beautifying the face, for hunting and fishing, for cooking and preserving, for fireworks, and for hosts of other items. It claims to have been translated from the French, and it also contains ' a collection of Divers Secrets taken out of the Cabinet of a Person of Quality ', but it is, I believe, based upon one of Lemery's works. Amongst the medical prescriptions is the following : ' To stop the Urine of those that piss in Bed. Take of the inward Pill of Pomegranate-flowers, Provence Roses, Mastick, of each half a Dram, Seeds of Sumach One Dram, Dragon's Blood Two Drams, Red Sanders half a Dram, Roots of Solomon's Seal half an Ounce, a mouse prepared and flea'd, throwing away the Head and Feet, washed in White-wine, and dried in an Oven, One Ounce, pouder all apart, then mix them with Two Ounces of Sugar of Roses in Pouder, whereof a Dram is to be taken

[1] Nicholas Culpeper, *Pharmacopoeia Londiniensis*, 6th ed. (London, 1659), p. 46.

[2] Rendel Harris, *The Ascent of Olympus* (Manchester, 1917), p. 83.

[3] N. Lemery, *Traité Universel des Drogues Simples*, 3rd ed. (Paris, 1723), p. 803.

In the *Knight of the Burning Pestle*, Beaumont and Fletcher refer to the mouse as a cure for chilblains : ' Let him rub all the soles of his feet, and his heels, and his ankles, with a mouse-skin.'

every morning steep'd in White-wine, Two Hours before Breakfast '.[1]

Nearly half a century later the mouse still appears in ' Dispensatories ', and is still prescribed for all the varied purposes to which it had been applied by the ancient writers already quoted. The following is typical of many : ' The whole Animal, and its Dung are used in Medicine. The Mouse, cut up alive, and applied, draws out Splinters, Darts and Arrows, and cures the Bites of Scorpions, extracting the poison. The Ashes cure the involuntary or nocturnal Flux of the Urine. The Dung purges Infants from the Head, diminishes Stones in the Kidneys, or Bladder, and removes a Condyloma, Verruca, Ficus, Marisca, and the Tumours affecting the Anus.' [2]

In the British Isles the mouse passed from official to popular medicine in the nineteenth century, and its use has survived to the present day. In Gloucestershire a roasted mouse eaten by the patient is a cure for whooping-cough,[3] and in Suffolk, the ashes of a mouse baked alive are used for rheumatism.[4] In the same county ' fried mice are relied on as a specific for the small-pox, and I am afraid that it is considered necessary that they should be fried alive '.[5] In Leicestershire, fried mice are believed to be an infallible remedy for whooping-cough, and they are also eaten as a cure for quinsy. In administering the medicine, it is

[1] *Arcana Curiosa, or Modern Curiosities of Art and Nature* (London, n.d.), pp. 5–6. There is no date on the title-page, but at the foot of one of the plates is the colophon : ' Printed for T. King in Little Brittain, 1711.'

[2] R. James, *Pharmacopoeia Universalis, or a New Universal Dispensatory*, 2nd ed. (London, 1752), p. 349. For further references to mouse-eating in Europe see F. Netolitzky, *Zeitschrift für Untersuchung der Nahrungs- und Genussmittel*, Bd. xxvi (Berlin, 1913) p. 425.

[3] E. S. Hartland, *County Folk-Lore—Gloucestershire* (London, 1892), p. 51.

[4] Lady Eveline Camilla Gordon, *County Folk-Lore—Suffolk* (London, 1893), p. 20.

[5] Ibid., p. 18.

necessary to seat the patient upon a donkey with his face towards its tail, and give him the roast mouse to eat, but he must not know what he is eating.[1] Similar medicinal use of the mouse has been recorded from almost every county in the British Isles, and instances might be multiplied almost indefinitely.[2] A Norfolk doctor told the writer that he still (1928) frequently meets with the use of mouse-medicine (generally for whooping-cough or nocturnal urination) in his country practice; and a correspondent from Walsham-le-Willows, Suffolk, in a letter dated August 9th, 1929, writes: 'You will be interested to know that the practice of administering skinned mice for whooping-cough is still in vogue amongst the uneducated classes in this part of the country.' In country schools in the last generation it was a frequent punishment for a child who had had an accident in his sleep to be compelled to eat a penitential mouse-pie in the presence of his schoolmates.[3]

From the instances assembled above, it will be seen that the mouse as a medicine has been in continuous use for sixty centuries. It will be observed that in almost every case the mouse must be skinned and cooked for internal use, and split open for external application.

Apart, however, from its purely medicinal use, the mouse has been an object of particular attention in many lands and for long ages. In Greek mythology, there is the well-known Apollo Smintheus, the Mouse-Apollo. There was a legend that Apollo saved his country from destruction when the crops were invaded by swarms of mice. On the coins of Alexandria Troas, the mouse appears with the

[1] C. J. Billson, *County Folk-Lore—Leicestershire and Rutland* (London, 1895), p. 55.

[2] e.g. E. M. Wright, *Rustic Speech and Folklore* (London 1913), p. 240 (Cornwall), p. 252 (Cheshire and Norfolk); Rendel Harris, *The Ascent of Olympus* (Manchester, 1917), p. 96 (Lancashire); etc.

[3] Rendel Harris, loc. cit.

effigy of the god, and on other coins, such as those of Argos, the mouse alone is represented as the symbol of the god.[1] Dr. Rendel Harris believes this episode to be of too local a character to account for the association of the mouse with Apollo, and prefers to see in it the medicinal use of the mouse and Apollo in this aspect of healer.[2] Andrew Lang interpreted the legend as the survival of an ancient mouse-totem,[3] but his view is not generally accepted at the present day.[4] Dr. Wilhelm Spiegelberg interprets Apollo Smintheus in the light of a legend preserved by Herodotus. The historian here relates that Sethon [5] the high-priest disestablished and disfavoured the military caste in Egypt when he became king, after which 'Sennacherib, King of the Arabians and Assyrians, made war on Egypt. Now the military caste among the Egyptians did not want to lend aid, and the priest, being in hard straits, entered the temple, and before the statue of the god, bewailed the calamities with which he was threatened. Then in a vision he beheld the god bidding him be of good cheer, as he should come to no mishap in opposing the Arabian army, as he (the god) would send him assistance. Trusting in this vision, he gathered such of the Egyptians as would follow him and pitched camp at Pelusium . . . and field-mice, over-running the enemy in the night, devoured their bow-strings and their bows and the straps of their shields, so that on the morrow, many fled unarmed and many fell. And to

[1] W. W. Roth, *Catalogue of the Greek Coins in the British Museum : Troas, Æolis, Lesbos* (London, 1894); K. O. Müller, *Die Dorier* (Breslau, 1844), vol. i, p. 285.

[2] Rendel Harris, op. cit., pp. 83, 94.

[3] Andrew Lang, *Custom and Myth* (London, 1885), pp. 103 sq.

[4] See especially W. Warde Fowler, *Classical Review*, November, 1892.

[5] The Sethon of Herodotus has been identified by Prof. F. Ll. Griffith with the Satne Khamwese of the demotic stories; see his *Stories of the High Priests of Memphis* (Oxford, 1900). For the stories and their bibliography, see G. Maspero, *Popular Stories of Ancient Egypt* (London, 1915), pp. 115 sq.

this day a stone statue of this king stands in the temple of Hephaestus, with a mouse in his hand.' [1]

In an important commentary upon this passage Dr. Spiegelberg has shown that we have here the origin of a popular romance growing before our eyes. The statue referred to by Herodotus could only be that of the god holding his cult-animal in his hand. The mouse was sacred to Horus of Letopolis in the Delta, and Herodotus mistook the statue of the god for that of a king, or rather the statue of the high-priest of the Memphite Ptah (Hephaestus), or still more probably, the high-priest of Horus of Letopolis. The mouse gives the clue to the origin of the story as Herodotus relates it, for it is not an Egyptian idea, but came from the East, where the mouse was the symbol of destruction, and so appears in the Biblical legend to which reference will presently be made. The same oriental idea, according to Spiegelberg, penetrated into Greek religion in the figure of Apollo Smintheus, worshipped in Troas. Spiegelberg believes that the mouse-legend is not of Hebrew origin, for south of the temple of Ptah was a Phoenician settlement that had existed long before the time of Herodotus, and the Egyptian adaptation that he copied was doubtless current amongst these Semitic peoples, who had confused the memory of the host of Assyria perishing through the agency of mice, and close to their settlement was the statue of an exalted personage holding a mouse in his hand : hence the story.[2]

Figures of mice, made of faience, steatite, bronze, and other materials from Egypt are known, and were evidently figures of the cult-animal of the Letopolite Horus, just as are the figures of the sacred cat of Bast, the frog of Hekt, and many others.

[1] Herodotus, ii, 141.

[2] W. Spiegelberg, *Zeitschrift für ägyptische Sprache*, Bd. xliii (1906), pp. 91 sq.

The myth of Apollo Smintheus is full of difficulties, and whilst no detailed examination of it is possible here, it will be interesting to note the views of scholars on the origin of the god. Nilsson [1] gives good grounds for upholding the opinion expressed by Wilamowitz-Mollendorf that Apollo's origin is in Asia Minor and that his cult was transferred thither to Greece,[2] a thesis that has been opposed by several scholars of weight, notably Dr. L. R. Farnell and by Prof. H. J. Rose.[3] He gives an interesting study of Apollo generally, in the course of which he says: 'He [Apollo] was the sender of illness, because sudden illness is thought of as caused by some mysterious shot, as is shown by the beginning of the *Iliad*, and also the averter of illness as a god of purifications and expiations. In this function he is the most prominent figure in the religious movement of the archaic age, but he developed his character and his functions only gradually.' [4]

Apollo Smintheus is connected with the legend of Troy: 'According to Greek legend, the oldest town in the Troad was that founded by Teucer, who was a son of the River Scamander and the nymph Idaea. Tzetzes says that the Scamander in question was the Scamander in Crete, and that Teucer was told by an oracle to settle wherever the "earth-born ones" attacked him. So when he and his company were attacked in the Troad by mice, which gnawed their bow-strings and the handles of their shields, he settled on the spot, thinking that the oracle was fulfilled. He called the town Sminthium and built a temple to Apollo Smintheus, the Cretan word for mouse being

[1] Martin P. Nilsson, *The Minoan Mycenaean Religion and its Survival in Greek Religion* (Lund, 1927), p. 443.

[2] *Hermes*, Bd. xxxviii (1903), pp. 575 sq.; *Greek Historical Writing and Apollo* (Oxford, 1908), pp. 27 sq.

[3] L. R. Farnell, *Cults of the Greek States* vol. iv (Oxford, 1907), p. 98; H. J. Rose, *Handbook of Greek Mythology* (London, 1928), p. 135.

[4] Martin P. Nilsson, op. cit., pp. 443, 444.

*Smithius.*' [1] There were also temples of Apollo Smintheus in the island of Ceos at Coressia,[2] and at Kulakli in Asia Minor, near the Homeric site Chryse.[3] In this latter there was a statue of Apollo with a mouse at his feet, and tame mice were kept as sacred to the god.[4] In the Smintheion of Hamaritus in the Troad white mice were fed as a solemn rite and had their holes under the altar, and near Apollo's tripod was a figure of a mouse.[5]

Dr. Farnell refuses to see any regular cult of the mouse in connexion with Apollo. ' It may be sufficient for the present to observe, first, that Aelian's phrase " the inhabitants of Anaxitos in the Troad worship the mouse " is extremely vague, as it might indicate either a serious cult of the mouse as a mysterious divine power or a trifling and occasional propitiation of a little animal harmful to crops ; secondly, that Apollo as the agricultural deity might naturally be supposed to be in some way answerable for the field-mice, occasionally—according to the various cult-legends—sending them as a plague or to assist his Cretan followers and occasionally destroying them, and that mice might be kept in his temple and treated kindly in order to persuade the rest of their tribe to do no harm to the fields ; thirdly, that there is no indication that Apollo was regarded as incarnate in the mouse, or that his worshippers in Aeolis ate mice ceremoniously, as certain Semites may have done, or even offered them in sacrifice to him ; finally, there is no record or hint of a totemic mouse-tribe in this district.' [6]

[1] Art ' Troy and Troad ', *Encyclopaedia Britannica*, 11th ed. (1911), vol. xxvii, p. 317, col. i. See also Diodorus Siculus, iv, 75 ; Aelian, *De Natura Animalium*, xii, 5 ; Tzetzes, *Scholion on Lycophron*, 29, 72 ; etc.

[2] E. A. Gardner, art., ' Ceos ', *Encyclopaedia Britannica*, 11th ed. vol. v, p. 684.

[3] Art. ' Troy and Troad ', op. cit, supra, p. 316, col. i ; Homer, *Iliad*, i, 35 sq. [4] Strabo, xiii, 1, 48, 63.

[5] Aelian, *De Natura Animalium*, xii, 5 ; Strabo, xiii, 1, 48.

[6] L. R. Farnell, *Cults of the Greek States*, vol. iv (Oxford, 1907), p. 256 ; cf. p. 165.

Dr. G. F. Hill quotes the following extract from Dr. Raymond Crawfurd: 'Whether the attribute of Apollo was a rat or a field-vole, I have no hesitation in saying that it was as an instrument of plague that the animal was associated with Smintheus',[1] and adds that even mice that destroy crops cause famine, as the association with typhus (which the ancients would regard as plague) with famine is historically notorious. This is illustrated by a striking passage in Strabo.[2]

From these various views, the reader must form his own judgement: it is necessary now to pass on.[3]

Ceremonial mouse-eating has been practised as a religious rite by several peoples in antiquity. Amongst the Semites the mouse, like the pig, was an unclean animal,[4] yet down to the time of Isaiah some of the Jews were wont to meet secretly in gardens to eat the flesh of swine and of mice as a religious rite.[5] 'Doubtless this was a very ancient ceremony, dating from the time when both the pig and the mouse were venerated as divine, and when their flesh was partaken of sacramentally on rare and solemn occasions as the body and blood of gods. And in general it may be said that all so-called unclean animals were originally sacred; the reason for not eating them was that they were divine.'[6]

[1] Raymond Crawfurd, *Plague and Pestilence in Literature and Art*, (Oxford, 1914).

[2] G. F. Hill, *Journal of Hellenic Studies*, vol. xxxvi (London, 1916), p. 135. The passage of Strabo (III, iv, 18) is as follows: *οὐδὲ τὸ των μυων πλῆθος ἴδιον (τῶν Ἰβήρων), ἀφ' οὗ καὶ λοιμικαὶ νόσοι πολλάκις ἠκολούθησαν. συνέβη δ' ἐν τῇ Καντα βρίᾳ τοῦτο τ ῖς Ῥωμαίοις, ὥστε καὶ μισθοὺς ἄρνυσθαι μυοθηροῦντας πρὸς μέτρον ἀπωδειχθέν [καὶ] διεσώζοντο μόλις προσελάμβανε δὲ καὶ ἄλλων σπάνις καὶ σίτου.*

[3] As to Apollo Smintheus, see further, Ovid, *Fasti*, iv, 425, and Sir James Frazer's note, *The Fasti of Ovid* (London, 1929), vol. iv, p. 265.

[4] *Leviticus*, xi. 29.

[5] *Isaiah*, lxv, 3; lxvi. 3, 17. 'They that sanctify themselves, and purify themselves in the gardens behind one tree in the midst, eating swine's flesh, and the abomination, and the mouse, shall be consumed together, saith the Lord.'

[6] J. G. Frazer, *The Golden Bough*, 3rd ed., vol. viii (*Spirits of the*

Mouse-eating is referred to in the Egyptian *Book of the Dead*, where in a spell to repel a hostile serpent in the nether-world, the dead man threatens it thus: 'Stop! or thou shalt eat the mouse, the abomination of Rē (the Sun).'[1] There is also an indication that in Egypt the mouse was taboo on certain days. In a calendar of Lucky and Unlucky days, under the date 12th day of the first month of Spring (called by the Copts *Tybi*), is the entry: 'Bad. Bad. Bad. Look not upon any mouse this day: go not near one in thy house.'[2] According to Movers, mice were sacramentally eaten by the Babylonians.[3]

There is a curious mouse-eating legend associated with the name of the Celtic hero Lugaid. Many legends are associated with his name, many of which, after the manner of legends, are contradictory. There are various accounts of his origin and parentage and of his association with the equally famous Cuchulainn, the king of Ulster.[4] According to one account, Lugaid, as king of Munster, felled Cuchulainn with his own hand at the time when Cuchulainn was, of all his men, alone able to fight, for the rest of the male population of Ulster were observing the *couvade*, the history of which is preserved in another remarkable legend.[5] The story concerning the mice relates to the battle of Mucraine; this has been translated from Celtic manuscripts by Dr. Whitley Stokes[6] and it may be summarized as follows:

Lugaid, the king of Munster, is worsted in a struggle with

*Corn*, ii), p. 24. See also W. Robertson Smith's *Lectures on the Religion of the Semites*, 3rd ed. (London, 1927), p. 293.

[1] *Book of the Dead*, xxxiii.

[2] *Sallier Papyrus No. IV* (Brit. Mus. No. 10184), recto 14, 3.

[3] F. C. Movers, *Die Phönizier* (Bonn, 1846), vol. i., p. 219.

[4] See John Rhys, *Lectures on the Origin and Growth of Religion as Illustrated by Celtic Heathendom* (The Hibbert Lectures, 1886), 2nd ed. (London, 1892), index s.v. Lugaid, and especially p. 478 sq.

[5] The story of the Ulster *couvade* is summarized in my *Custom of Couvade* (Manchester, 1929), pp. 4–6.

[6] *Revue Celtique*, vol. xiii (Paris, 1892), pp. 426 sq.

a rival, and with his band of warriors he takes flight to Alba.[1] The king of the Albanach [people of Alba] accepts military service from the refugees and supplies them with victuals, although at the same time he is suspicious as to Lugaid's identity, and Lugaid, for his part, is in fear lest the High King of Ireland may send instructions to the king of Alba to put him to death. The king of Albanach endeavours to discover which of his guests may be Lugaid, and after various trials he orders a mouse-feast. The Irishmen were filled with horror at the idea, but they were obliged to submit, and after they had swallowed the mice, the king of Albanach enters the tent in which the warriors are assembled, and addressing Lugaid says: 'They [the mice] do something for thee.' 'So do I for them,' says Lugaid. 'Art thou Lugaid?' asks the king. 'That is my name,' says Lugaid. 'Welcome to thee in sooth,' says the king; 'why hast thou hidden thyself [i.e. concealed thy identity] from me?' 'For fear of thee,' says Lugaid. 'I would avenge thy sighing [sorrowing over wrong] up to this day had I known thee,' answered the king. 'Let help come to me even to-day,' says Lugaid. 'Thou shalt have help forthwith,' replied the king. The king of Albanach then arranges to provide a fleet and an army to win back Lugaid's kingdom for him.

From the dialogue related above it would appear that the expression 'The mice do something for thee' evidently means that having ceremonially eaten the mice the Irishmen became blood-brothers of the Albanach, and in the phrase 'So do I for them,' the 'them' can only refer to a mouse-clan of Scotland, that is to say, to a group of worshippers of a mouse-god, analogous to the mouse-Apollo of the Troad, or to a people with a mouse-totem. The 'something' done by this ceremonial feast is the establishment of a mouse-brotherhood, that is to say, a

[1] *Alba* (genitive, *Alban*) is Scotland.

tribal brotherhood. Lugaid does 'something' for the Scottish mouse-folk by joining them and adding to their strength. Having accomplished the ceremony, Lugaid no longer fears to reveal his identity; he has become a 'mouse' and is protected by the code of the brotherhood, and the king of the mouse-people must in duty bound avenge the wrongs of a brother. He therefore offers help, which Lugaid accepts, and a decisive victory in Ireland followed, by which Lugaid was raised to the position of High King of that country. The existence of a mouse-people in Scotland is not difficult to admit in parallelism with the boar-people (*orc*) of the Orkneys, and the cat-people of Caithness, the two divisions of the Picts, and other tribes. Indeed, Professor W. J. Watson gives the name Luchraige, 'mouse-tribe', from *luch*, 'mouse', with which he compares the Hyatae (Ὑάται), 'pig-people', the Oneatae (Ὀνεάται), 'ass-people', and the Choereatae (Χοιρεάται), 'swine-people'.[1]

It has already been noted that in the East the mouse was the symbol of destruction. The ravages of mice were part of the plagues inflicted on Philistia during the detention of the Ark. The Philistines then offer 'five golden mice, according to the number of the lords of the Philistines, for one plague was on you all, and on your lords',[2] and 'the golden mice, according to the number of all the cities of the Philistines belonging to the five lords, both of fenced cities, and of country villages, even unto the great stone of Abel, whereon they set down the ark of the Lord; which stone remaineth unto this day in the field of Joshua, the Bethshemite'.[3] In this connexion Maspero refers to what are apparently *ex voto* figures of mice, made

[1] For the information contained in this paragraph I am indebted to Mr. Donald A. Mackenzie of Edinburgh. Mr. Mackenzie further informs me that there are references in Irish literature to 'mouse-lords'. For the Hyatae, Oneatae, and Choereatae see Herodotus, v, 68.

[2] 1 *Samuel* vi. 4.

[3] 1 *Samuel* v. 18.

of metal, from Western Asia, and gives an illustration of one of them.[1]

When discussing the medicinal use of mice above, attention was called to the fact that in this aspect mice were especially associated with children. An echo of this association is found in the curious and widespread customs relating to the milk-teeth of children. In the Highlands of Scotland a milk-tooth cast by a child is thrust into a mouse's hole. Mr. Donald A. Mackenzie informs me that he has seen this done in Cromarty many times. Sir James Frazer notes that this custom is known in Germany, and has collected a number of instances of customs that associate children's teeth with mice or rats.[2] Jewish children in Russia throw cast teeth on the roof, and call upon the mice to give them an iron tooth in place of the tooth of bone. In Rarantonga (Polynesia) a child's tooth is thrown on the roof with a prayer to the rat :

> Big Rat ! Little Rat !
> Here is my old tooth,
> Pray give me a new one.

In New Guinea and Celebes the tooth is thrown on the roof, and the mouse is invoked by the words : ' Mouse, I give you my tooth, give me yours instead.' In Amboyna the same custom obtains. In ancient Mexico, Sir James Frazer relates that ' when a child was getting a new tooth, the father or mother used to put the old one in a mouse's hole, believing that if this precaution were not taken the new tooth would not issue from the gums '.[3] Precisely the same belief exists in Scotland to-day.

Sir James Frazer refers to a Swabian custom : ' When a

[1] G. Maspero, *The Struggle of the Nations*, 2nd ed. (London, 1910), p. 728 ; Palestine Exploration Fund, *Quarterly Statements*, 1893, p. 296, and 1894, p. 189.

[2] J. G. Frazer, *The Golden Bough*, 3rd ed., *The Magic Art*, vol. i, pp. 178 sq., where many instances and references will be found.

[3] J. G. Frazer, loc. cit.

child is teething you should bite off the head of a living mouse, and hang the head round the child's neck by a string, taking care, however, to make no knot in the string, then the child will teeth easily. In Bohemia the treatment prescribed is similar, though there they recommend you to use a red thread and to string three heads of mice on it instead of one.' [1] The prohibition as to tying knots is interesting when compared with the Egyptian prescription quoted above [2] to cure an infantile malady, by making the child eat a mouse and then tying the little animal's bones with a string in which seven knots have been tied. In the Swabian custom, the absence of knots was to ensure unimpeded growth of the teeth, whereas the string with seven knots was a device frequently used by Egyptian magicians, the function of the knots being to set up magical barriers against the entry of malicious spirits.[3]

A belief exists that the mouse could be the vehicle of the soul, or that the soul could assume the form of a mouse. In a Swabian story, a girl's soul creeps out of her mouth in the form of a white mouse.[4] A variant of this idea occurs in a Saxon story, where the soul comes out of the sleeper's mouth in the form of a red mouse.[5] There is also a German belief that the soul assumes the shape of a white mouse and runs out of the sleeper's mouth,[6] and in Transylvania it is

[1] J. G. Frazer, loc. cit, p. 180. [2] *Supra*, p. 105.

[3] As to the untying of knots to avoid obstruction by sympathetic magic, see J. G. Frazer, *The Golden Bough*, 3rd ed., vol. iii (*Taboo and the Perils of the Soul*), pp. 293 sq.; and my *Custom of Couvade* (Manchester, 1929), pp. 81, 83, 94. For knots in Egyptian magic, see A. H. Gardiner, art., 'Magic (Egyptian)', *Hastings' Encyclopaedia of Religion and Ethics*, vol. viii, p. 266, col. 2; and my *Magician and Leech* (London, 1929), pp. 57, 67, and as to the number *seven*, see my paper in *Ægyptus*, vol. viii (Milan, 1927), pp. 97 sq.

[4] A. Birlinger, *Volksthümliches aus Schwaben* (Freiburg, 1861), Bd. i, p. 303.

[5] R. Wuttke, *Sächsische Volkskunde*, 2nd ed. (Dresden, 1901), p. 318.

[6] R. Andree, *Braunschweiger Volkskunde* (Brunswick, 1896), p. 266.

said that a child should not be permitted to sleep with its mouth open, lest the soul should escape in the form of a mouse, in which case the child would never again wake.[1]

A Toradja man saw a mouse coming out of the nose of a sleeping friend: 'He ran after the animal and killed it, and then, turning round, found that his companion was dead.'[2]

A similar story in which the soul leaves the sleeper's mouth in the form of a red mouse is recorded from Thuringia: a servant girl fell asleep whilst shelling nuts, and her soul quitted her as a mouse. Her companions being unable to wake her, carried her to another place, but the mouse returning was unable to find her and re-enter her body and the girl died.[3] The soul leaving the body does not always take the form of a mouse: it may appear as a bee, a cricket, a butterfly, a bird, a snake, or in various other forms.

The identification of rats and mice with the souls of the dead is prevalent in Scandinavian and Teutonic mythology. According to a popular German belief, the soul after quitting spent the first night of its separate existence in the care of St. Gertrude, who, as patroness of souls, had the mouse as her symbol.[4] According to another legend this mouse-emblem represents the evil spirit that the saint vanquished.[5] In her aspect of guardian of souls, St. Gertrude takes the place of the ancient Teutonic goddess Holda or Perchta, who received the souls of maidens and of children in the form of white mice. In Norse mythology

[1] H. von Wlislocki, *Volksglaube und Volksbrauch der Siebenbürger Sachsen* (Berlin, 1893), p. 167.
[2] W. J. Perry, *The Megalithic Culture of Indonesia* (Manchester, 1918), p. 150.
[3] S. Baring-Gould, *Curious Myths of the Middle Ages* (London, 1877), p. 423 (quoting Praetorius).
[4] S. Baring-Gould, op. cit., p. 462.
[5] Ibid., p. 463.

Freya, the German Holda, and Odin receive the souls of the dead, and in this capacity they lead a flock of mice and rats, the former being the souls of women, the latter those of men.[1] Baring-Gould has suggested the connexion between rats and mice and the children in the story of the Pied Piper, and in the numerous similar legends related to, or derived from, it.[2]

A rich crop of legends grew out of the story of Bishop Hatto, who lived at the close of the tenth century. The country suffered from famine, and the starving populace sought food from the bishop, whose granaries were well stocked. The perfidious bishop, to appease his clamouring flock, enticed them into a large barn under the pretext of relieving their wants, and, having shut them in, fired the building and burned its hungry occupants alive. As a judgement for his cruel and wicked act he was plagued by mice and rats in swarms, and he fled for safety in a boat to a fortified tower standing on a rock in mid-stream, to escape his doom. The vermin, however, swam after him, invaded his stronghold and devoured him. This is the outline of the story ; it occurs with many variants in other localities, and a discussion of it with many references will be found in Baring-Gould's book from which so many quotations have already been made.[3] A curious variant is the story of the spontaneous creation of swarms of mice from the bodies of innocent victims, who appear *mira quadam metamorphosi* and avenge the dead by destroying their murderers.[4]

The rapid multiplication of mice has probably given rise to the many differently expressed beliefs that they arise spontaneously. A curious story is related by William of Malmesbury, who states that if a person is bitten by a leopard, swarms of mice instantly appear. ' My informant,'

[1] S. Baring-Gould, op. cit., p. 466.
[2] Ibid., 417–46, 466.
[3] Ibid., pp. 447 sq.
[4] Ibid., p. 453.

says this writer, 'has seen a person wounded after this manner, who, despairing of safety on shore, proceeded to sea, and lay at anchor; when immediately, more than a thousand mice swam out, wonderful to relate, in the rinds of pomegranates, the insides of which they had eaten; but they were drowned through the loud shouting of the sailors.' [1]

Aristotle asserts that the reproduction of mice is more prodigious than that of any other animal, both as regards number and rapidity. In spite of their rapid reproduction, their destruction and disappearance is equally remarkable, for in a few days all will vanish: the attacks of man and beast are unavailing against their fecundity, heavy rain being the only means of reducing their multitudes.[2] He states that in a certain part of Persia the female embryos of mice are themselves pregnant whilst in the womb.[3] In another place Aristotle's observation is at fault, for he says: 'Animals with pointed teeth drink by lapping, and some that have differently formed teeth, such as mice.' [4] Again, he affirms that the mice of Pontus ruminate whilst cutting their teeth,[5] and that these same mice, which are white, hibernate in trees.[6]

Pliny has handed down many curious beliefs regarding mice. He classes them amongst prophetic animals, the Marcian War being foretold by mice gnawing the shields of Lanuvium, and that the destruction of the saddle-straps of the Emperor Carbo at Clusium predicted his doom.[7] Again, he states that the lobes (*fibrae*) of the liver of the mouse are said to agree with the number of moonlight nights in the month, the number corresponding with the

[1] S. Baring-Gould, *Curious Myths of the Middle Ages* (London, 1877), pp. 455; *William of Malmesbury's Chronicle*, bk. iii.
[2] Aristotle *Historia Animalium*, vi, 37.
[3] Aristotle, loc. cit.; Pliny, *Nat. Hist.*, x, 85.
[4] Aristotle, op. cit., viii, 6; possibly Aristotle is here referring to shrews.
[5] Aristotle, op. cit., ix, 50.
[6] Ibid., viii, 17.
[7] Pliny, *Natural History*, viii, 82.

amount of moonlight.[1] The number of lobes increase and decrease with the light of the moon.[2] Pliny states that elephants ' of all beasts hate the mouse most, and reject their food if they see that it has been touched by this animal '.[3] These statements, as will be seen, have been repeated by later writers.

Bartholomaeus repeats the statements of Pliny as to the origin of mice from the humours of the earth, and the relation of their livers to the phases of the moon, but he adds that mice never drink and that their bites are venomous, and he refers to the medicinal value of the animal.[4] Pliny is again his authority when he says of elephants : ' These beasts void and flee the mouse.' [5] Similarly Lupton says : ' Elephants of all other beasts do chiefly hate the mouse, so that if they shall see or perceive that a mouse hath once touched their meat that is before them, they loathe the same and will not eat a bit thereof.' [6]

In the medieval *Bestiaries*, ' Mice are separately described and illustrated. The name " mus " is stated to be derived from " humus ", on the strength of the old story about mice being generated from damp earth. Pliny's account of the growth of their livers at the time of full moon when the tides flow, and their decrease when it wanes, is also repeated. The mouse is a type of gluttons and thieves. In the words of the *Bestiary* : " Mystically mice signify men gaping with greed for earthly desires and secretly pilfering what they can gain from other people's stores." [7] They are therefore usually shown eating grains and very fat as in MS. Harl, 4751.' [8]

[1] Pliny, *Nat. Hist.*, xi, 76; Aelian, *De Nat. Anim.*, ii, 56.
[2] Ibid., xxix, 15. [3] Ibid., viii, 10.
[4] *De Proprietatibus Rerum*, xviii, 73. [5] Ibid., xviii, 42.
[6] T. Lupton, *A Thousand Notable Things* (London, 1627), vi, 43. The first edition was published in 1579.
[7] MS., 12 F., xiii, and Harl, 4751.
[8] George C. Druce, *Journal of the British Archaeological Association*, London, December, 1919), p. 69.

Another aspect of the medicinal use of mice, this time as an antidote for poison, is mentioned by the herbalist John Gerard, who, speaking of monkshood (*Napellus*), says, on the authority of Avicenna: 'Against so deadly a poison *Avicen* reckoneth vp certain remedies, which help after the poyson is vomited vp: and among these he maketh mention of the Mouse (as the copies euery where haue it) nourished and fed vp with *Napellus*, which is altogether an enemie to the poisonsome nature of it, and deliuereth him that hath taken it from all perill and danger.' [1]

Such are some of the magical and mythological aspects of the mouse: it was probably due to the magical virtues ascribed to the little animal that it was first used in medicine, a use to which it was continuously put for more than sixty centuries. Its popularity is not confined to the Old World: in American lore and folk-medicine, the mouse also plays a part.[2]

[1] John Gerard[e], *The Herball or Generall Historie of Plantes*, ed. Thomas Johnson (London, 1636), p. 975; cf. John Parkinson, *Theatrum Botanicum: The Theater of Plantes* (London, 1640), p. 316.

[2] For a series of examples, see, for instance, *Twenty-sixth Annual Report (for 1903–4) of the Bureau of American Ethnology* (Washington, 1907), pp. 263, 314, 315, 417, 471, etc.

## CHAPTER VI

# THE LORE OF THE HOOPOE

'The crested Hoopoe flits, the Roller-bird
Lights the dark thicket with his burning blue.'

Sir Edwin Arnold.

ἐποποποποποποπόποποῖ.—Aristophanes, *Birds*, 227.

NO bird has played a greater part in mythology and folk-lore than the hoopoe (*Upupa epops*, *L.*). Its wide geographical range has made it familiar to the inhabitants of many lands, and its striking appearance has singled it out from amongst many of its less conspicuous fellows. The hoopoe inhabits, or visits as a summer migrant, a very large area of the Old World from Western Europe to China, and it is resident throughout the year in North-eastern Africa. Although no bigger than a thrush, and with no great power of wing, the hoopoe, with its variegated plumage, large erectile crest, and slender curved bill, cannot fail to attract attention. 'Its head and neck are of a golden buff—the former adorned by the crest already mentioned, which begins to rise from the forehead and consists of broad feathers, gradually increasing in length, tipped with black, and having a sub-terminal bar of yellowish-white. The upper part of the back is of a vinous-grey, and the scapulars and flight-feathers are black, broadly barred with white, tinged in the former with buff. The tail is black with a white chevron, marking off about the distal third part of its length.'[1] Alas! the hoopoe's habits are not marked by the dignity that should accompany its fine appearance. All writers who have described its habits agree in stating that it prefers to seek

[1] Alfred Newton, *A Dictionary of Birds* (London, 1896), p. 431.

its food in dunghills and refuse-heaps and in filth of the most abominable kind. Its nest is likewise composed of foul material, and its unsavoury condition is made worse as incubation proceeds, for the hen-bird does not leave the nest, as most other birds do, in order to defaecate, and the droppings of the parent bird, as well as those of the young (which it does not remove from the nest, as most other birds also do), add continually to the unsanitary condition of the nest. In spite of its dirty habits, however, the hoopoe's fine feathers have made its reputation.

The earliest records of this bird are to be found on the Egyptian monuments. In the fishing and fowling scenes that adorn the walls of many Egyptian tombs the crested hoopoe can often be discerned amongst the crowds of birds that the ancient artists love to depict. Good examples, dating from the Pyramid Age (Fourth to Sixth Dynasties) may be seen in the tomb of Ptah-hotp at Sakkara,[1] and in that of Urana at Sheikh Said.[2] In the tombs of the Middle Kingdom (Eleventh to Thirteenth Dynasties), hoopoes occur several times. Examples are provided by the tomb of Senbi at Meir [3] and by that of Knum-hotp at Beni Hasan.[4] Another hoopoe, in the attitude of flying, formerly adorned the tomb of Antef at Thebes ; [5] the painting has been destroyed, but a copy of it, made about 1827, has been preserved.[6]

The hoopoe also occurs, though rarely, as a hieroglyph,

[1] Norman de G. Davies, *The Mastaba of Ptahhetep*, pt. ii (London, 1901), pls. 13, 14.

[2] Davies, *The Rock Tombs of Sheikh Said* (London, 1901), pl. 11.

[3] A. M. Blackman, *The Rock Tombs of Meir*, pt. i (London, 1914), frontispiece, and pls. 2 and 16.

[4] F. Ll. Griffith *Beni Hasan*, pt. iv (London, 1900), pl. 6 (coloured). The Egyptian artist has rendered his subject well ; it is true to nature except that the tail is represented as forked.

[5] Theban Tomb No. 155, *temp.* Tuthmosis III, Eighteenth Dynasty.

[6] Prisse d'Avennes, *Histoire de l'Art Égyptien*, pt. ii, *Dessin* (Paris, 1878), pl. 6 ; J. G. Wilkinson, *Manners and Customs of the Ancient Egyptians*, (London, 1837), vol. iii, pl. 15 (facing p. 71).

with the phonetic value *deb* ; [1] from this it follows that the name of the bird was originally *deb*, but this name became obsolete in early times, for the hoopoe is not thus designated in the texts.

In the *Book of the Dead* there is a rare spell, numbered 168 in the standard edition, of which only four copies are known. One of these copies is contained in a papyrus in the British Museum,[2] and it is accompanied by a well-drawn picture of the hoopoe perching on a bush.[3] The accompanying text makes no allusion to the bird, but as it deals with the souls of the dead, the hoopoe may perhaps here typify the departed spirits ; this occurrence, however, is quite isolated, and there is no other evidence whatever of such an interpretation.

The hoopoe was evidently credited with some occult or magical power by the Egyptians. In a demotic papyrus it is mentioned several times.[4] In the directions for divination by vessel with a medium occurs the following : ' An amulet to be bound to the body of him who has the vessel, to cause it to work magic quickly. You take a band of linen of sixteen threads, four of white, four of [green], four of blue, four of red, and make them into one band and stain them with the blood of a hoopoe . . . and you bind it to the body of the boy who has the vessel and it will work magic quickly.' [5] The blood of the hoopoe occurs in an ointment to be applied to the eyes of the divination-medium in order to produce visions. According to the text, after applying the ointment, ' then you see the shadow

[1] A. H. Gardiner, *Egyptian Grammar* (Oxford, 1927), p. 460, No. G. 22.

[2] *British Museum Papyrus No. 10478* (Dyn. XIX or XX).

[3] Reproduced in E. A. W. Budge, *The Book of the Dead* (Translation), 2nd ed. (London, 1923), vol. iii, p. 557.

[4] F. Ll. Griffith and (Sir) Herbert Thompson, *The Demotic Magical Papyrus of London and Leiden* (London, 1904).

[5] *London–Leiden Magical Papyrus*, 3, 33–35 ; Griffith and Thompson, op. cit., p. 39.

of every god and every goddess '.[1] In another passage relating to divination are the words: ' The Spirit gathering; blood of a *smune*-goose, blood of a hoopoe, blood of a night-jar.' The blood of these birds, together with certain vegetable products, are used in an amulet to assist the medium.[2] In another demotic papyrus there is a formula to induce dreams. In this directions are given to draw a figure of Hermes with the head of an ibis [i.e. Thoth] on a piece of fine linen, using as ink the blood of a hoopoe.[3] The blood of the hoopoe, heated with various herbs, occurs in a prescription contained in a Coptic papyrus of the tenth or eleventh century A.D. for ' eyes that begin to exude salt water '.[4] A very curious nostrum appears in a Graeco-Egyptian magical papyrus that may be rendered as follows: ' To improve the memory, use the following mixture. Take the plant Artemisia [mugwort] . . . stone, lungs and heart of a hoopoe and of a cock-vulture, and braying all together, add honey and anoint your lips, smearing your mouth also with a paste of frankincense. . . . In the evening, when you are about to go to rest, purify your bed with asses' milk.' [5]

In a demotic papyrus in the Leiden Museum that contains a collection of fables we find the hoopoe in friendly alliance with the falcon.[6]

It may be mentioned that in these texts the Egyptian

[1] *London–Leiden Magical Papyrus*, verso, 22, 1–8; Griffith and Thompson, op. cit., p. 195.

[2] *London–Leiden Magical Papyrus*, recto., 27, 9; Griffith and Thompson, op. cit., p. 159. A live hoopoe is used in an eroticon in the same papyrus (recto, 25, 24; op. cit., p. 155), and its blood is a charm to induce dreams (verso, 17, 5; op. cit., p. 191).

[3] *Leiden Papyrus, I, 384*, 5, 4–12; F. Lexa, *La Magie dans l'Égypte Antique* (Paris, 1925), vol. i, p. 161.

[4] W. E. Crum, *Catalogue of Coptic Manuscripts in the John Rylands Library* (Manchester, 1909), p. 59.

[5] G. Parthey, *Zwei Zauberpapyri* (Berlin, 1886), Pap. No. ii, lines 18–21.

[6] *Leiden Papyrus I, 384*, 12, 7; W. Spiegelberg, *Mythus vom Sonnenauge* (Strasburg, 1917), p. 35, and *Glossary*, No. 837.

name for the hoopoe is *kukupt*, which in Coptic becomes *koukoupat* in the Northern dialect, *koukoupet* in the Southern [1] and κούκουφος in Greek. The Greek word ἔποψ is probably onomatopoeic, like the Latin *upupa*, whence the French *huppe*, and our *hoopoe*.[2] Κούκουφος became confused with *cuculus*, cuckoo, and there are frequent confusions of the two birds in literature. In a manuscript cited by Ducange it is said that 'the hoopoe (ἔποψ) is a bird that flies in the air. It is also called κούκουφος and πούπος.' [3] The Hebrew *dukiphat* [4] is doubtless etymologically connected with the Egyptian word, and is rendered 'lapwing' in the English version of the Old Testament.[5] The Arabic word for hoopoe is *hudhud*.[6]

Before passing on to the hoopoe in classical texts some further allusions to it in oriental literature may be made. The bird was connected with Solomon, and in the *Koran* it is closely associated with him [7]: 'And he viewed the birds, and said, "What is the reason that I see not the lapwing [*read* hopooe]? Is she absent? Verily I will chastise her with a severe chastisement; or I will put her to death; unless she bring me a just excuse." And she tarried not long before she presented herself unto Solomon, and said: "I have viewed a country which thou hast not

[1] Sahidic dialect, ⲕⲟⲩⲕⲟⲩⲫⲁⲧ; Boheiric, ⲕⲟⲩⲕⲟⲩⲡⲉⲧ.

[2] There are various obsolete English spellings such as Hoophoop, Howpe, Hoopoo, Whopee, Whoophoo, etc.

[3] Charles du Fresne Ducange, *Glossarium ad scriptores mediae et infirmae graecitatis* (Lyons, 1688), s.v. *κούκουφος*.

[4] דוכיפת.

[5] *Leviticus* xi. 19; *Deuteronomy* xiv. 8.

[6] In the Coptic-Arabic *Scala Magna* published by Victor Loret, *Annales du Service des Antiquités de l'Egypte*, vol. i [Cairo, 1900] are the entries (p. 56) ⲡⲓⲕⲟⲩⲕⲟⲩⲫⲁⲧ = الهدهد; ⲡⲓⲕⲁⲣⲁⲡⲏⲡ = الهدهد; and ⲛⲓⲡⲉⲧⲉⲡⲏⲡ = الهدهد. The equivalents given by Athanasius Kircher from his manuscript (*Lingua Aegyptiaca Restituta* [*Rome* 1643]), to these three words are respectively *cucupha, upupa; upupae; upupae*. The modern Egyptians have another name for the Hoopoe, *'Abu Tartûr*, أبو طرطور. 'father of a long pointed cap,' an allusion to the crest of the bird when lowered.

[7] *Al Koran*, xvii.

viewed ; and I come unto thee from Saba, with a certain piece of news." ' The bird then proceeds to a description of the country and of its queen.[1]

The Arab historians relate that Solomon, having completed the Temple of Jerusalem, went on a pilgrimage to Mecca, where having stayed as long as he pleased, he set out towards Yaman ; and leaving Mecca in the morning he arrived by noon at Sanaa. Being in need of water, he sought out the hoopoe ; this bird had the reputation of being able to find water underground, which devils used to draw, after it had marked the place with its bill.[2]

Another Arab legend, still told, likewise connects the hoopoe with Solomon. In return for services rendered, the hoopoes begged for crowns of gold. Their request was granted, and the birds in their vanity were at first delighted ; but they soon found their heavy ornaments troublesome, and returning to the king, they implored him to take back his gift. The king improved the occasion by delivering a long homily on vanity and its consequences, but he relented, and for the golden diadems he substituted the beautiful feather crowns that the hoopoes wear to this day.[3]

The Arabic physician Ibn al-Beithar of Malaga (died A.D. 1248) devotes considerable space in his book of simples to the medicinal virtues of the hoopoe. According to him, and to the writers he cites, the decoction of its flesh cures colic, of its eyes restores lost memory, and prevents or cures leprosy. Its eye is likewise a protection against enemies, and its blood cures sties in the eyes. Fumigations made with its feathers drive out reptiles, and fumigations of its brain dispel all hurtful influences. The body of the bird,

[1] George Sale, *The Koran* (London, new ed., n.d.), ch. xxvii, pp. 286–7.

[2] Ibid., ch. xxvii, p. 287, note *i*.

[3] Lady William Cecil, *Bird Notes from the Nile* (London, 1904), pp. 34–7 ; C. Swainson, *Folk Lore and Provincial Names of British Birds* (London, 1886), p. 107 (quoting Wood and Curzon).

hung over the door of a house, protects the inmates from the evil eye. Its flesh eaten by a sick man, or its brain mixed with sesame oil and put in the nose, effects a cure. Its intestines dried and mixed with sesame oil preserve the hair and prevent it from turning grey. The lower mandible, carried as an amulet, promotes the goodwill of men. Fumigations with its wing-feathers disperse ants, and, with its nerves, cure leprosy. Fumigations with its flesh cure bewitched or helpless persons.[1]

The medical and magical virtues of the hoopoe are described at length in the *Syriac Book of Medicines*. The passage is so interesting and curious that no apology is needed for quoting it at length :

'Kill it with a piece of money on which is the Name of God. Take a new vessel, and throw the bird into it, and with it put two drachms of red lime and one drachm of wood ashes, and boil it in water until it is parboiled. Then take out the bird. Put the head on one side, and the right pinion on one side. Remove one section of it, and place it in a vessel of wine, and whosoever drinketh thereof will become drunk. The left pinion is good for the man who is in thrall to his wife ; remove one section of the bird and set it in oil, and let the man drink it, and he shall be free. Tie up the right shoulder in a piece of new rag, and hang it up over a woman who is ill in her body, and she shall have relief. Steep its tongue in rose-water for five days, and tie it up in buffalo-skin, and hold it in thy hand, and the dogs will not bark at thee. Dry its skull, and macerate it in oil, and rub it on any part of the body thou wishest, and it will destroy the hair. Dry a bone of the back in the shade, and pound

[1] L. Leclerc, 'Traité des Simples d'Ibn al-Beithar', *Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, vol. xxvi (Paris, 1883), p. 388, No. 2251.

it, and pour oil of violets over it, and if [thou rubbest it on any part of the body] the hair will grow. Having salted the heart of this bird with Indian Salt, tie it in a lion's skin, and give it to a woman whose child will not come forth from her. Let her grasp it in her left hand, and her child will descend from her womb straightway. It a man drink the lungs of the bird in very bitter water, he will not be able to attempt to copulate all the days of his life. If its liver be pounded and mixed with crocus, it is good for the lungs and the heart, and the spleen (?). If a man hangeth up the left wing over himself on the night of his wedding nothing will be done. Mix its right side (or loin) with Spahnî eye-paint, and smear thine eyes therewith, and every one who seeth thee will receive thee gladly. Put the bone of its back in wine for ten days, and then take it out, and place it under the head of him thou seekest, and thou wilt not wake up until thou receivest from him thine affairs. Pound a *denkâ* of the liver of the bird, and work it up in honey, cast it into a place where there are fish, and they will die, and will float on the surface. It is good for two people each to eat one half of the heart of this bird, for they will then love each other. And the blood of this bird is good for him that suffereth from attacks of dimness of sight. And it is good for the scrofula which cometh in the neck and the head. Heat some of the blood and smear it over the places affected by scofula twice daily. Roast the heart of the bird, and drink it [in water], and it will be very beneficial to thee. Roast the brain of the bird, pound and mix it with sesame oil, and anoint therewith him that is vexed by devils. Roast the wings of the bird in a house, and ants will flee therefrom. And if thou roastest some of the flesh of the bird in a house, devils and sorceries (or sorcerers) will flee therefrom. If a man hangeth the bone of a wing or of a leg of the bird upon himself when he is

going into the presence of the Governor, the Governor will love him. If thou roastest the liver of the bird, and dost give it to drink to him whom thou seekest, he will love thee.' [1]

The virtues ascribed to the hoopoe in this and the previous extracts quoted show that in ancient times, as well as at the present day, the bird was regarded with veneration in the East. The late Canon Tristram wrote: 'Few birds have had more absurd fables attached to them than this. The Arabs have a superstitious reverence for it, and, believing it to possess marvellous medicinal qualities, they call it "the doctor bird". Its head is an indispensable ingredient in all their charms, and in the practice of witchcraft. They also believe that it listens to whispers, and betrays secrets, and what is far more important, that it has the power of detecting water, and pointing out hidden wells and springs. These attributes have doubtless been suggested by the quaint and grotesque movements of its head and tall crest, which it erects in walking, and then, with a solemn, portentous look, it bends its head down till the bill touches the ground, raising and depressing the crest at the same time.' [2] In Upper Egypt, the *fellahin* of to-day use the head of a hoopoe, together with a piece of the lip and ear of a donkey and other similar ingredients, tied up in a little packet, and hang them under the right arm of a pregnant woman as a protective charm. After the mother's confinement the charm is worn by the child.[3] A magician in search of hidden treasure sweeps the ground to rid the site of

[1] E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics or The Book of Medicines* (Oxford, 1913), vol. ii, p. 706.

[2] H. B. Tristram, *The Natural History of the Bible*, 2nd ed. (London, 1868), p. 208.

[3] W. S. Blackman, *The Fellahîn of Upper Egypt* (London, 1927), p. 66.

impurities, then sprinkles it with water, and lights a fire in which he burns some hoopoe's feathers. The ceremony is repeated for two or three nights in succession.[1] Similarly, in Mosul, magical use is made of the bird. If a man desire a charm, he takes a dead hoopoe, with a piece of inscribed paper tied to it, to a cemetery and lays it near a grave at night. He then reads a book while the demons gather round the hoopoe, but he must on no account turn round.[2] In the same district love-charms are made of the brain of the hoopoe pounded up and ceremonially administered in a cake.[3]

Passing now from oriental to classical literature, there is much material to discuss. There is no need for anything more than a passing reference to the merely descriptive passages that deal with the hoopoe and its habits. Many writers refer to the hoopoe's crest and to the offensive character of its nest, which, according to Aristotle and to Aelian, is made of human excrement.[4]

In classical mythology the hoopoe figures prominently in the legend of Tereus, often referred to by Greek writers.[5] Tereus, son of Ares, was a legendary king of Thrace.[6] His help was enlisted by Pandion, king of Athens, in a war against Labdacus. Pandion, the son of Erichthonius and Praxithea, married his maternal aunt Zeuxippe, and by

[1] W. S. Blackman, *The Fellahîn of Upper Egypt* (London, 1927), p. 313. Miss Blackman throughout calls the bird by the obsolete spelling *hoopoo*.

[2] R. Campbell Thompson, *Semitic Magic* (London, 1908), p. 172.

[3] Ibid., p. lxiv.

[4] Aristotle, *Historia Animalium*, ix, 15; Aelian, *De Natura Animalium*, iii, 26; Pausanias, X, iv, 8; Pliny, *Historia Naturalis*, x, 44; Ovid, *Metamorphoses*, vi, 671; etc.

[5] For references, see Sir James Frazer's note to Apollodorus, iii, 14, 8. [*Apollodorus: The Library* (London, 1921) vol. ii, pp. 98–100]. The summary of the story of Tereus here given is based upon the narrative of Apollodorus.

[6] According to Pausanias, ix, 14, 8, he reigned at Daulis in Phocis, or at Pagae in Magaris. Thucydides, ii, 29, and Strabo, ix, 13, 3, also state that he dwelt in Daulis. Pausanias, however, states that he was a Thracian (ix, 16, 4).

her he had twin sons and two daughters, Procne and Philomela. The war having been brought to a successful conclusion, Pandion in gratitude bestowed his daughter Procne on Tereus in marriage. By her Tereus had a son, Itys ; but he was unfaithful to his wife, whom he concealed in the country and represented to be dead, and seduced her sister Philomela. He then married Philomela. Tereus cut out her tongue, presumably in order to prevent her from bearing witness against him. Philomela, however, contrived to relate her misfortunes to Procne by embroidering characters upon a garment, whereupon the latter emerged from her retirement, and having slain her son Itys, she served him up for supper to the unsuspecting Tereus. She then fled forthwith with her sister.[1] Tereus having in the meantime discovered the terrible deed, set out in hot pursuit of the fugitives. He was about to overtake them at Daulis when they prayed to the gods to transform them into birds. Their prayer was answered : Procne became a nightingale and Philomela a swallow. Tereus was also transformed into a bird, and became a hoopoe.[2]

Pausanias in one passage states that Tereus died by his own hand and was buried at Megara. It was at his tomb there that the hoopoe first was seen.[3] Elsewhere, however, he says that Tereus was turned into a nightingale.[4] In the original story Tereus seems to have been transformed into a hawk, but a belief existed that the bird that in spring is a hawk, in autumn changes into a hoopoe. The later writers probably drew the story, with some changes, from the lost drama of Sophocles, *Tereus*.[5] By the Latin

[1] Compare the similar crime committed by Tantalus, who killed his son Pelops and served his flesh at a banquet. Pindar, *Olympian Odes*, i, 49 sq.

[2] Apollodorus, iii, 14, 8.

[3] Pausanais, i, 41, 8.

[4] Ibid., x, 4, 8.

[5] Hyginus, *Fabulae*, 45 ; Aeschylus, *Suppliants*, 60 ; scholiast on Aristophanes, *Birds*, 281 ; the hawk, being a bold bird, is more

poets the transformations of the two women were inverted, an absurd substitution, for the tongueless maiden became a songster, whilst her unmutilated sister became a relatively mute bird.[1]

The hoopoe (Ἔποψ) is the principal character in Aristophanes, comedy, *The Birds*. He appears as a pompous but dignified and courteous sovereign, the King of the Birds, zealous to improve the timid and somewhat primitive race over which he rules, for the rank and file of the feathered kingdom are distrustful of the human race and resent the conversations of their king with his human visitors, Peisthetarius and Euelpides. In this remarkable play there are frequent allusions to the Tereus myth. Quite early in the play the hoopoe declares his indentity and says, ' But, stranger, you must know that once I was a man. . . . It was your poet Sophocles that reduced me to this condition with his tragedies.' His identity with Tereus is at once recognized.[2]

Aristotle quotes a passage from a tragedy of Aeschylus, now lost, in which the hoopoe is described as undergoing a seasonal metamorphosis. According to this fragment, the hoopoe changes in the spring from a crested mountain-bird into a white hawk, changing back again with the procession of the seasons.[3] In the same way the cuckoo was believed to change into a hawk,[4] and in the fragment of Aeschylus quoted by Aristotle probably confusion has

suited to the story than the hoopoe, which is timid, although the latter has a more imposing appearance. See Sir James Frazer's note to Pausanias, x, 14, 8 (*Pausanias' Description of Greece* [London, 1898], vol. v, p. 225).

[1] Virgil, *Georgics*, iv, 15 and 511 ; *Eclogues*, vi, 77–81 ; Compare J. G. Frazer, *Apollodorus : The Library*, vol. ii, p. 100, and H. J. Rose, *Handbook of Greek Mythology* (London, 1929), pp. 262, 263.

[2] Aristophanes, *Birds*, 97–102. The reference is to the lost tragedy of Sophocles, the *Tereus*. Aeschylus also wrote a tragedy of the same name.

[3] Aristotle, *Historia Animalium*, ix, 49 B.

[4] Ibid., vi, 7 ; Pliny, *Natural History*, x, 11.

arisen between the hoopoe and the cuckoo, the Egyptian name of the former being the word that gave rise to that of the latter, as noted above. In later mythology, the hoopoe and the cuckoo are often associated. In Bavaria, for instance, the hoopoe is supposed to play the part of attendant or lackey to the cuckoo.[1]

The hoopoe was believed to manifest tender affection for its young. A story is related by Aelian of a hoopoe that built its nest in a fissure in a wall. During the absence of the parent bird the hole in the wall was cemented up, and the hen hoopoe was thus debarred from reaching her offspring. She at once flew off in quest of a certain herb charged with magical virtues, and returning with this, and placing it upon the cement, the latter immediately broke away and gave the bird access to her nestlings. This was repeated with equal success three times.[2] The same story is related of the woodpecker (*Picus*) by Pliny: 'The woodpecker alone amongst all birds rears its young in holes in trees. It is commonly believed that if a shepherd plugs the entrance with a wedge, the bird can make it fall out by means of a certain herb.'[3]

The magical herb used by the hoopoe is called πόα by Aelian. According to the description of πόα given by Theophrastus, the herb seems to be some kind of grass,[4] whilst the herb called by him πόα ἡ Μηδικὴ has been identified with *Medicago sativa*.[5] In folk-lore this magical herb is called the springwort, because it causes locks and bolts to spring open. It is an elusive treasure, and the only way to obtain it is to plug up the entrance of a woodpecker's nest during the absence of the mother-bird.

[1] C. Swainson, *Folk Lore and Provincial Names of British Birds* (London, 1886), p. 109.

[2] Aelian, *De Natura Animalium*, iii, 26. This legend is referred to in Aristophanes, *Birds*, 654 sq.

[3] Pliny, *Natural History*, x, 20.

[4] Theophrastus, *Historia Plantarum*, vii, 8, 3.

[5] Ibid., viii, 7, 7.

When on her return she finds she cannot get access to her young, she flies off and returns with the springwort, by means of which the obstruction to the nest comes away. To obtain possession of the herb it is necessary for the person who desires it to conceal himself near the nest, and at the critical moment to rush out and startle the bird. The woodpecker, in terror, then drops the herb from its beak, and the fortunate finder promptly seizes it. This story, with some variation of detail, is widely diffused in European folk-lore. The bird in question is usually the woodpecker ; orher birds, however, among them the hoopoe and the bee-eater (*Merops apiaster*), sometimes take the place of the woodpecker.[1]

The young of the hoopoe were believed likewise to show great filial affection for their parents, tending them carefully in their old age.[2] This legend is often narrated and quaintly illustrated in the medieval *Bestiaries*,[3] but the association of the hoopoe with this belief is probably due to confusion with other birds, for filial affection is more commonly ascribed to the stork and the bee-eater.[4]

In the works of European writers from the fifteenth to the eighteenth centuries, references to the hoopoe are

[1] For the story of the springwort and a large collection of references, see J. G. Frazer, *The Golden Bough*, 3rd ed., vol. xi (*Balder*, ii), pp. 69 sq. See also the accounts of Albertus Magnus and of Conrad von Megenberg, conveniently summarized in S. Baring-Gould, *Curious Myths of the Middle Ages* (London, 1877), pp. 397 sq.

[2] Aelian, *De Natura Animalium*, x, 16.

[3] G. C. Druce, *Journal of the British Archaeological Association* (London, December 1919), p. 81.

[4] Aristotle, *Historia Animalium*, ix, 13 : 'Many persons have reported that the stork is fed by its young, and some say the bee-eater also, and that they are fed by the young, not only in their old age, but as soon as the fledglings are able to do so, and that the parents remain within the nest.' Aelian, *De Nat. Anim.*, xi, 30 : 'The bee-eater seems to be more filial than the stork, because it does not put off nourishing its parents until they have grown old, but begins to do so as soon as its feathers have reached their full growth.' Pliny, *Natural History*, x, 51 : 'Merops vocatur, genitores suos reconditos pascens.' Cf. also Sophocles, *Electra*, 1058 ; Aristophanes, *Birds*, 1355 ; etc.

found that echo the early magical beliefs contained in the Egyptian documents. As already mentioned, the hoopoe is usually called the lapwing, that being the only crested bird common in Europe with which the writers were familiar. A few extracts may be given from such works. 'The lapwings' tongue, if hung over a man who suffers from forgetfulness, helps him.' [1] 'Quirin is a stone that is found in lapwings' nests. The stone bewrayeth and discovereth in sleep counsel and privity. For this stone, laid and set under a man's head that sleepeth, maketh him tell as he thinketh sleeping, and multiplieth wonderly phantasies. Therefore witches love that stone, for they work witchcraft therewith.' [2] This story is evidently related to, or confused with, that of the swallow-stone.[3] The belief in the latter has persisted almost to the present day. As recently as 1866 the following instance was recorded: 'I met, last summer in Brittany, with a curious fact relating to the habits of the common house-swallow. In Brittany there exists a widespread belief amongst the peasantry that certain stones found in swallows' nests are sovereign cures for certain diseases of the eye. The stones are held in high estimation, and the happy possessor usually lets them on hire at a sou or so a day. Now, I had the good fortune to see some of these swallow-stones, and to examine them. I found them to be the hard polished opercula of some species of *Turbo*, and although their worn state precludes the idea of identifying the species, yet I am confident that they belong to no European *Turbo*. The largest I have seen was three-eighths of an inch long and a quarter of an inch broad; one side is flat, or nearly so, and the other is convex, more or less so in

[1] *Hortus Sanitatis* (Moguntia, 1491), iii, 118.

[2] Bartholomaeus Anglicus, *Liber de Proprietatibus Rerum* (first printed edition about 1470), xvi, 83.

[3] Pliny, *Natural History*, xxxvii, 56; Marcellus, *De Medicamentis*, 8; Dioscorides, *De Materia Medica*, ii, 60; etc.

different specimens. Their peculiar shape enables one to push them under the eyelid across the eyeball, and thus they remove any eyelash or other foreign substance which may have got in one's eye; further than this, they have no curing power; the peasants, however, believe they are omnipotent. The presence of these opercula in swallows' nests is very curious, and leads one to suppose that they must have been brought from some distant shore in the swallow's stomach.' [1]

The old saying, 'If the lapwing do sing before the vines do bud, it foreshadows great plenty of wine,' [2] has a Greek origin.[3] In Sweden the appearance of the hoopoe was regarded as a presage of war.[4]

Speaking of the hoopoe generally, Bartholomew thus describes it: 'The lapwing eateth man's dirt; for it is a bird most filthy and unclean, and is capped [crested] on the head, and dwelleth always in graves or in dirt. And if a man anoint himself with her blood when he goeth to sleep, he shall see fiends busy to strangle and snare him; and her heart is good to evil-doers, for in their evil doings they do use their hearts. When he ageth, so that he may neither see nor fly, his birds [i.e. young] pull away the feeble feathers, and anoint his eyes with the juice of herbs, and hide him under their wings till his feathers be grown; and so he is renewed and flieth and seeth clearly.' [5] In this paragraph will be recognized a confused jumble of the ideas expressed in the Greek and Oriental writings examined earlier in this chapter.

The magical reputation of the hoopoe in ancient and

[1] G. Lebour, *Zoologist*, vol. xxiv (London, 1866), p. 523.

[2] Thomas Lupton, *A Thousand Notable Things* (London, 1627), ix, 21. The first edition of this work appeared in 1579.

[3] Horapollo, ii, 92: ἐὰν πρὸ τοῦ καίρου τῶν ἀμπέλων πολλὰ κράζῃ, εὐοινίαν σημαίνει: 'If its voice is much heard before wine-pressing, it foretells a good vintage.' The bird here referred to is ἔποψ.

[4] Thomas Pennant, *British Zoology*, vol. i (London, 1766), p. 258.

[5] Bartholomaeus Anglicus, op. cit., xii, 37.

medieval times secured it a place in the pharamcopoeia of later days. Thus Nicholas Lemery states that its flesh is good for colic,[1] and Dr. Robert James speaks of it as follows: '*Upupa*. The Hoopo. It is a melancholy and unclean Bird, living on Worms found in Dung, Caterpillars, Beetles and the like. The Parts in Use are the Flesh and the Feathers. The Flesh and its decoction, according to *Avicenna*, have a specific Virtue against Colic. And the Feathers applied are said to mitigate Pains in the Head.'[2]

[1] N. Lemery, *Traité Universel des Drogues Simples*, 3rd ed. (Paris, 1723), p. 904, s.v. *Upupa*. '*Upupa*, en François, *Hupe*, est un oiseau un peu plus gros qu'une Caille, de couleur cendrée noire; sa tête est ornée d'une hupe ou maniere de crête composée de beaucoup de plumes; son bec est long, noir, un peu recourbé en bas, son cou est court, sa queuë est grande, se jambes sont courtes, il habite les bois et les montagnes, il se repose sur la terre plus que sur les arbres, il cherche les sepulchres, il vit de vers, de mouches, d'excremens, il fait son nid avec de la fiente humaine dans les trous de vieux batimens, des tours. Sa chair est bonne pour la colique. On dit *Upupa* du cri de cet oiseau, *Pupu*.'

[2] R. James, *Pharmacopoeia Universalis, or the New Universal English Dispensatory*, 2nd ed. (London, 1752), p. 360. Dr. Robert James was an eminent physician in his day, and an intimate friend of Samuel Johnson. He was the inventor of the celebrated 'Dr. James's Powder', from a dose of which Goldsmith is said to have died. See *The Times*, 24th, 28th, 29th, 30th and 31st December, 1929, and 1st, 3rd, 4th, 8th, 9th, 10th and 14th January, and the 11th February, 1930, for an interesting series of articles and letters on the subject.

## CHAPTER VII

# BIRTHWORT

### A STUDY IN THE PROGRESS OF MEDICAL BOTANY THROUGH TWENTY-THREE CENTURIES

> ' To othre woundes, and to broken armes
> Some hadde salves, and some hadde charmes.'
> Chaucer, *Knightes Tale.*

THE progress of medical botany is arrayed before our eyes in an almost unbroken series of documents that begins with the medical papyri of ancient Egypt and the cuneiform tablets of Assyria, and extends throughout classical and medieval times to the present day. It will be seen that these documents reveal rather an obstinate conservatism than a progressive career. To illustrate this fact, on account of the enormous mass of material, manuscript and printed, that has to be examined, it will be convenient to follow the fortunes of a simple herb, or related series of herbs, through the centuries. For this purpose aristolochia, or birthwort, has been chosen, not because it has any outstanding claims to interest, but because it affords a typical example. Other herbs might have been selected the progress of which can be followed many centuries farther into antiquity : such would be the case of any medicinal plant that occurs in the Egyptian and Assyrian medical texts. Birthwort, however, has not as yet been identified either in the hieroglyphic script of ancient Egypt, or in the cuneiform writing of Western Asia. This inquiry will therefore begin at a relatively late date, the fifth century before Christ, the earliest references to birthwort known to the writer being in the Greek medical books that make up the Hippocratic collection.

For the treatment of women, aristolochia is recommended as a purgative,[1] and the same herb, taken in warm water or wine, is used for a uterine complaint.[2] It is also used in a prescription for pains in the sides,[3] and for dressing ulcers.[4]

Concerning birthwort, Theophrastus (370–285 B.C.) says: 'Aristolochia is fragrant in smell, but very bitter in taste: in colour it is black. The best grows in the mountains. It has a leaf like *alsine*, only rounder: it is useful for many purposes, and is best for sores on the head and other sores, also for bites of reptiles, for inducing sleep, and for disorders of the womb. It is directed that it should be applied as a plaster, steeped in water, and for the other purposes should be given shredded into honey and olive-oil: for snake-bites it should be taken in sour wine and also used as a plaster on the bite: to induce sleep it should be scraped up and administered in black dry wine; in cases of *prolapsus uteri* a lotion of it mixed with water should be applied.'[5] Theophrastus also says that the roots can be kept for five or six years without losing their efficacy.[6] It will be observed that no mention is made in the above-quoted passage of the use of the plant that gave it its name; indeed, Dioscorides is the first to refer to this distinctive property, although aristolochia is used for diseases of women by the Hippocratic School.

Nicander of Colophon (second century B.C.), poet, physician, and grammarian, wrote a long poem in hexametres on the nature of venomous animals and their poisons. In this poem, birthwort is twice alluded to. The

[1] Hippocrates, *De Morbis Mulierum*, i, 100. [2] Ibid., ii, 76.
[3] Ibid., *De Morbis*, iii, 23.
[4] Ibid., *De Ulceribus*, 10.
[5] Theophrastus, *Historia Plantarum*, ix, 13, 3; duplicate text with minor variations, ix, 20, 4. The translation here quoted is that of Sir Arthur Hort, *Theophrastus' Enquiry into Plants* (London, 1916), vol. ii, p. 283; cf. ibid., p. 319.
[6] Ibid., ix, 14, 1; op. cit., p. 287.

root of the round birthwort [1] is stated to be good for snake-bites, and it occurs as one of the ingredients in a long list of herbs to be compounded into a medicine for every kind of illness—a sort of ' all-heal '.[2]

Cicero alludes to birthwort thus: ' Not to speak of causes, effects at least are certain, and it is known that aristolochia is potent for snake-bites '; [3] and again, ' Although you may not know the reason, you can observe the effect of herbs, such as scammony and aristolochia '.[4]

The great Celsus (50–25 B.C.), whose works remained a text-book in English medical schools until the middle of the nineteenth century, often prescribes aristolochia for contusions, wounds, and ulcers.[5]

We now come to Dioscorides (A.D. 40–90), whose work is the source from which very many subsequent writers drew their information. In the third book of his *Materia Medica*, three chapters are devoted to the different kinds of birthwort. They may be summarized as follows:

Chapter IV: This plant is the best for assisting birth, and there are three kinds. The round, also called the female, has bitter leaves, scented like ivy, and many shoots spring from a single root; the flower is white. Chapter V: The long aristolochia, called the male, has a longer leaf than the round kind, and its shoots are more slender. The flower is purple, and heavily scented. Whilst the root of the round kind is globular, that of the long is shaped like a finger; both are of the colour of box. Chapter VI: *Aristolochia clematitis* is more slender and fibrous. The

[1] *Aristolochia rotunda.*

[2] Nicander, *Theriaca*, 509 sq., 934 sq.; O. Schneider, *Theriaca et Alexipharmaca* (Leipsic, 1856).

[3] Cicero, *De Divinitate*, i, 10, 16. [4] Ibid., ii, 20, 47.

[5] Celsus, *De Medicina*, v, 18, 7; v, 18, 24; v, 18, 35; v, 20, 4; v, 22, 2; v, 22, 3; etc. In the first-named passage he specifies the plant as *Aristolochia Cretica*.

long kind is good for pain and for poison if taken in wine. Taken in pepper and wine, it acts as an emmenagogue, assists delivery, and cures ulcers. It produces the same effects when applied as a pessary. The round kind is good for hiccoughs and spasms, for the spleen, for convulsions, and for pain in the sides, if taken with water. It is likewise suitable for foul ulcers and wounds, as well as for the gums and teeth.[1]

The same information, to which much additional matter is appended, is given by Pliny (A.D. 23–79). He begins by explaining the meaning of the word *aristolochia*, and says that the plant is called by the Latins the 'earth apple' (*Malum terrae*), of which there are four species. The first has a root with round tubers, leaves intermediate between those of the mallow (*malva*) and of the ivy, but darker and softer. The second is the male birthwort, with an elongated root of the thickness of a staff. The third, which is very slender and long, like a vine-shoot, is the most efficacious, and is called *clematitis* or *cretana*.[2] All these kinds are of the colour of box, with small shoots or branches and purple blooms. They bear little berries like the caper, but their virtue is in the root alone. The fourth kind is called *plistolochia*. It is a slender plant with fibrous roots, about as large as a reed, and is also called *polyrrhizos* (many-rooted).[3]

Having thus described the various kinds of birthwort, Pliny proceeds to discuss their uses and properties. They are all sweet-scented, and are used in the preparation of perfumes. For therapeutic uses, the largest specimens of all the kinds are best. The round-rooted species is antidote for serpent-bites, but the long kind is better. If taken by a woman with beef immediately after conception, it

[1] Dioscorides, *De Materia Medica*, iii, 4–6.
[2] Cf. above, Celsus' allusion to Cretan birthwort.
[3] Pliny, *Natural History*, xxv, 54.

assures the birth of a male child.[1] The fishermen of Campania call the round root the 'fish of the land': if it be cut up and mixed with certain other herbs, then thrown into the sea, the fish devour it greedily, but they immediately die and float on the surface of the water. The many-rooted kind is good for convulsions and contusions, the root being administered with water. For pleurisy and for affections of the nerves the seed is used. It is reputed to be strengthening and heating and to have the same virtues as satyrion. Such, in summary, is Pliny's account of birthwort.[2]

Cassius Felix, otherwise known as Cassius the Iatrosophist (second century A.D.), mentions round birthwort in a prescription for an affection of the womb.[3] Oribasius (326–403) states that *Aristolochia longa* fills ulcers with flesh, and is suitable for fomentations of the womb, but in some cases the round kind is better. The latter also draws thorns from the flesh, and cleanses and heals foul sores. It is also good for the gums, whitens the teeth, and is a remedy for asthma, hiccoughs, and epilepsy if the sour juice is administered with water. It is likewise good for rupture and for convulsions.[4]

Under Theodosius I, lived a Christian medical writer named Marcellus Empiricus (end of fourth to early fifth century). In his work on medicines birthwort is several times employed. The round kind appears in prescriptions for the head,[5] for pain in the hips,[6] for gout,[7] and for affections of the stomach.[8] The long kind is also used for the head,[9] for the stomach,[10] and for the loins.[11] Marcellus

[1] The same virtue is ascribed by Pliny to Thelygonon (*Mercurialis perennis*, L.), xxvi, 91.
[2] Pliny, *Natural History*, xxv, 54.
[3] Cassius Felix, *De Medicina*, 77, 'Ad praefocationem matricis'.
[4] Oribasius, *Euporista*, ii, 1, s.v ἀριστολοχία.
[5] Marcellus Empiricus, *De Medicamentis*, i, 106.
[6] Ibid., xxv, 6. [7] Ibid., xxxvi, 68. [8] Ibid., xx, 129.
[9] Ibid., vii, 17. [10] Ibid., xx, 115. [11] Ibid., xxviii, 36.

does not mention birthwort at all in connexion with female disorders. About the same period it is believed that the *Herbarius* of Apuleius Barbarus, or Pseudo-Apuleius, was compiled, a work that was greatly drawn upon by the compilers of the herbals of the sixteenth and seventeenth centuries. This work will be mentioned later when discussing the Anglo-Saxon medical books.

Paulus Aegineta of the Byzantine School (625–90) prescribes birthwort as a medicine for epilepsy,[1] and he further states that aristologia (note the corruption of the name) is a delicate remedy for melancholia.[2] For the teeth, the ashes of the root,[3] and cut-up shoots [4] are useful, and the root is also good for the gums.[5] For asthma and similar complaints round birthwort is recommended as an internal remedy,[6] as it is also for flatulence.[7] It is also used for dropsy in women,[8] and for sciatica.[9] The long birthwort occurs in a prescription for jaundice [10] and as an emmenagogue.[11]

It will be convenient here to mention a Syriac medical manuscript that has been edited by Sir Ernest Budge, because a considerable part of it is based upon a version of Galen's *De Locis Affectis*, and as this work was translated into Syriac about the eighth or ninth century, it is probable that the manuscript is founded upon a prototype of that period. In this manuscript, birthwort occurs in upwards of forty prescriptions. In some of these, the two kinds, the round and the long, are specified; in others no distinction is made. The passages are too numerous to cite individually, but it may be noted that the plant occurs as one of the ingredients in prescriptions for affections of the head, ears, chest, liver, heart, stomach, spleen, bowels, and nerves. It is used also for jaundice, paralysis, internal

[1] Paulus Aegineta, iii, 55. [2] Ibid., iii, 58.
[3] Ibid., iii, 151. [4] Ibid.,iii, 154. [5] Ibid., iii, 155.
[6] Ibid.,iii, 172. [7] Ibid., iii. 194. [8] Ibid., iii, 211.
[9] Ibid., iii, 252. [10] Ibid., iii, 214. [11] Ibid., iii, 236.

haemorrhage, asthma, and for other complaints of the chest.[1] At the end of the manuscript there is a glossary that gives the equations: Sapūtā = naf'a = zarāwand [2] = aristolochia.[3] The Arabic word we shall meet with again further on, and the same term occurs in Persian.

In 913 was born Shabbethai Donnolo, a Jewish physician who practised in Italy. He wrote a pharmaceutical work of which only a fragment has survived. In the Hebrew text the word *aristologhia*, transcribed from the Greek, occurs. Donnolo advises the physician to keep thick spices or aromatic herbs such as ginger, zeodary, rhubarb and aristolochia separate, and not to mix them with the resins or gums.[4]

To the ninth or tenth century must be assigned the long and important medical papyrus, written in Coptic, that was discovered at Meshaikh, near Girgeh, Egypt, in 1892, and which has been published *in extenso* by M. Émile Chassinat.[5] In this manuscript aristolochia occurs in four prescriptions. In the first, which is a collyrium for the eyes, it is written *serouanet*, a Coptic transcription of the Arabic word to which reference has already been made.[6] In the others, the Greek word is used, transcribed in Coptic respectively as *aristorkhias*, *alistolokhias*, and *alistorokhias*.[7] The Copts evidently had no word of their own for this plant. These

[1] E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics*: *The Book of Medicines*, 2 vols. (Oxford 1913), index, s.v. 'Aristolochia'.

[2] *Arabic* زراوند

[3] E. A. W. Budge, loc. cit., vol. ii, p. 722 (MS. folio 278 *b*).

[4] M. Steinschneider, *Donnolo, Pharmakologische Fragmente aus dem X. Jahrhundert*, etc. (Berlin, 1867), p. 3. As to Donnolo, see J. Leveen, *Proceedings of the Royal Society of Medicine*, vol. xxi (London, 1928), pp. 1397–1400.

[5] É. Chassinat, *Un Papyrus Médical Copte*, (Cairo, 1921).

[6] Ibid., No. 51, p. 156. The word is here written ⲥⲉⲣⲁⲟⲧⲁⲛⲧ

[7] Ibid., No. 135, p. 262, reading ⲁⲣⲓⲥⲧⲟⲣⲟⲭⲓⲁⲥ; No. 139, p. 266, ⲁⲗⲓⲥⲧⲟⲗⲟⲭⲓⲁⲥ; No. 142, p. 268, ⲁⲗⲓⲥⲧⲟⲣⲟⲭⲓⲁⲥ.

prescriptions are respectively for rodent ulcers, a cauterizing powder, and for abscesses.

The Anglo-Saxon medical manuscripts published by the Rev. O. Cockayne contain a version of the *Herbarius* of Apuleius, to which reference has already been made, and here aristolochia is mentioned under the name of smearwort. The passage is as follows :

'Chapter XX—Smearwort. 1. This wort, which is named *aristolochia*, and by another name Smearwort, is produced on downlands and on solid places.

'2. Against strength of poison, take this wort aristolochia and pound it ; give to drink in wine ; it overcometh the strength of the poison.

'3. For the stiffest fevers, take the same wort and dry it ; smoke (the sick) then therewith ; it puts to flight not only the fever, but also the devil sickness (*demoniacal possession*).

'4. For sore of the nostrils, take root of this same wort, and introduce it into the nostrils ; quickly it purges them, and leadeth to health. Verily, leeches may not heal much without this wort.

'5. In the case that one be afflicted with chill, take this same wort, and oil and swine grease ; put them together ; there hath it the strength to warm him.

'6. For bite of adder, take roots of this same wort, by weight of ten pennies and half a sextarius (¾ pint) of wine ; wash them together ; give to drink frequently ; then will it remove the poison.

'7. If any child be vexed, then take thou the same wort, and smoke it with this ; then thou wilt render it the gladder.

'8. In case that to any one an ulcer grow on his nose, take the same wort and cypress, and dragons and honey,

pound together, lay thereto [apply the preparation] ; then will it be soon amended.' [1]

In an eleventh- or twelfth-century poem attributed to Macer Floridus (not to be confused with the classical Aemilius Macer, a contemporary of Virgil), the statement is repeated that aristolochia dispels demons, stimulates peevish infants, and causes the birth of male children :

> Daemonium fumus depellere dicitur ejus ;
> Infantes fumo tradunt hoc exhiliari ;
> Plinius hanc formare mares cum carne bovina
> Appositum vulvae postquam concepit, inquit.[2]

The book of simples compiled by Ibn al-Beithar of Malaga (died 1248) summarizes the writings of his predecessors and therefore contains the results of Semitic pharmacology up to the author's time. He gives a full account of aristolochia under its Arabic name *Zarawand*,[3] and quotes Dioscorides, Galen, Oribasius, Ishak Ibn Amran,

[1] O. Cockayne, *Leechdoms, Wortcunning and Starcraft* (London 1864), vol. i, pp. 115–17.

For comparison, the following is the Latin text of the *Herbarius* :

1. *Ad vim veneni.*—Herba aristolochia, trita vel pisata, cum mero potui data venenum vincit.

2. *Ad febres acerrimas.*—Herba aristolochia sicca, subfumigabis eum, tunc hilariorem facies ; fugat et daemonia.

3. *Ad fistulas.*—Herbae aristolochiae radix purgata ex vino, teris et pastellum in vulneribus inponis, expurgat et ad sanitatem perducit. Medici quoquae sine ea succurrere non valent.

4. *Frigore exustis.*—Herba aristolochia ex oleo cocta calefactoriam vim habet, et cum axungia porcina.

5. *Contra serpentis morsum vel hominum.*—Herbae aristolochiae radicem pondus denarii unius, vinum eminam, saepius bibitur, discutit venenum.

6. *Si infans contristatus fuerit.* — Herba aristolochia subfumigabis, tunc hilariorem facies infantem.

7. *Ad carcinomata quae in naribus nascuntur.*—Herba aristolochia cum cipero et draconteae semen cum melle impositum emendat.

Pseudo-Apuleius, *Herbarius*, xix ; E. Howald and H. E. Sigerist, *Corpus Medicorum Latinorum*, vol. iv (Leipsic, 1927), p. 56.

[2] Macer Floridus, *De Viribus Herbarum*, 1421–4.

[3] *Book of Simples*, s.v. زرآوند L. Leclerc, ' Traité des simples par Ibn-el-Beithar,' *Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, vol. xxv (Paris, 1881), p. 203, No. 1099.

Maserdjuih (a Jewish physician of Basrah, who lived at the end of the seventh century and whose works were translated into Arabic), Ibn Semdjûn, Al-Forsy, Badighoras, At-Tabery, Ibn Serafûn (Serapion, ninth century), Razes (850–923), Avicenna (980–1037), and others. The two species are described, and the plant as a drug is stated to be hot and dry. Its virtues are similar to those enumerated by other writers; it is used for the teeth, gums, liver, and intestines, and is good for ulcers, chest complaints, tumours, scorpion stings, and as a purgative. No mention is made of birthwort as a woman's medicine.[1] Ibn al-Beithar also mentions birthwort under five synonyms. *Aristolûkhya*, an Arabic transcription of the Greek name;[2] *Bobralla* ('little yoke'), a name of *Aristolochia longa*;[3] *Shedjra rostem*,[4] the name given to the plant by the inhabitants of Ifrikiya, i.e. North Africa, Algeria;[5] *Qittsa 'L-haiya* ('snake's cucumber'), also a name of *Aristolochia longa*;[6] and lastly, *Masemgûra*, yet another synonym of the same plant.[7]

A recipe, magical in nature, occurs in a work attributed to Albertus Magnus (1193–1280). The object of the recipe is to kill snakes: for this purpose round birthwort is pounded up together with a frog and a quantity of ashes. Using this mixture as ink, the operator writes upon a piece of paper, and throws the paper at the serpent![8] According

[1] He merely mentions that the derivation of the Greek word indicates the usefulness of the plant in childbirth.

[2] *Book of Simples*, s.v. ارسطلوخيا. L. Leclerc, op. cit., vol. xxiii (1877), p. 54, No. 58.

[3] *Book of Simples*, s.v. بُبَرَّالَه. L. Leclerc, op. cit., vol. xxiii (1877), p. 201, No. 243.

[4] *Book of Simples*, s.v. شجرة زشم. L. Leclerc, op. cit., vol. xxv (1881), p. 326, No. 1300.

[5] The modern Algerian name for birthwort is *Bû roshtom*.

[6] *Book of Simples*, s.v. قثا للبية. L. Leclerc, op. cit., vol. xxvi (1883), p. 63, No. 1744.

[7] *Book of Simples*, s.v. مسمغورا. L. Leclerc, op. cit., vol. xxvi, p. 321, No. 2135.

[8] *De Mirabilibus Mundi*, first printed edition about 1500. 'Si vis statim interficere serpentem, accipe ex aristolochia rotunda

to Peter of Abano (fourteenth century), birthwort is one of the seven herbs that will cure any poison, and are said to have been found in the Trojan army by the oracle of Apollo.[1] In a botanical glossary contained in a fourteenth-century manuscript in the library of Pembroke College, Oxford, is the following entry : ' Aristologia, i. paciens, alia longa alia rotunda quando simpliciter rotunda.'[2] There is no plant in the list named *Paciens*, but there is an entry reading : ' Paciencia herba est, i. aristologia.'[3] In a similar glossary of the fifteenth century in the Bodleian at Oxford[4] is the following : ' Aristologie sunt duae species s. longa et rotunda. Radices et folia utimur et quando simpliciter ponitur pro rotundo intelligitur. Respice in malum storacis et in strongilis.'[5] On turning to *malum storacis*, we find it equated with aristologia (*var.* aristo-longia),[6] and *strongilis* is stated to be the same as *A. rotunda*.[7] Also belonging to the fourteenth century are the manuscripts edited by Professor Henslow ; in these aristolochia occurs several times. In a long section dealing with the preparation of medicaments for sores, etc., ' astrologi ' occurs, and for making a preparation called saue, or save, the plant, here called astrologia, occurs again.[8] Save

quantum vis, et tere illam bene, et accipe ranam sylvestrem vel campestrem et contere ipsam et commisce eam cum eo aliquid ex incausto et scribe cum eo in charta aut aliquo quod amas, et projice ad serpentes.'

[1] L. Thorndyke, *History of Magic and Experimental Science* (London, 1921), vol. ii, p. 908.

[2] J. L. G. Mowat, *Sinonomia Bartholomaei* (Oxford, 1882), p. 11 (published as pt. i of vol. i of the Series *Anecdota Oxoniensia*).

[3] Ibid., p. 33. The *i* in this, and the last, extract is, of course, an abbreviation for *idem*, ' the same '.

[4] Selden, B. 35. There are two other manuscripts containing this glossary in the Bibliothèque Nationale, Paris (Nos. 6954, 6957), one in the British Museum (Sloane, 284), and a fourth in the Library of Toulouse.

[5] J. L. G. Mowat, *Alphita : A Medico-botanical Glossary* (Oxford, 1887), p. 14. (*Anecdota Oxoniensia*, vol. ii, pt. 2.)

[6] Ibid., p. 107. [7] Ibid., p. 179.

[8] G. Henslow, *Medical Works of the Fourteenth Century* (London, 1899), p. 50, lines 5, 11 ; p. 55, line 11.

is used for sores and wounds, and is referred to by Chaucer : [1]

> ' To othre woundes, and to broken armes
> Some hadde salves, and some hadde charmes,
> Fermacyes of herbes, and eek save
> They dronken, for they wolde here lymes have.

In another passage, for ' makyng of salues, tretys, oynementys good and trewe ', both species of birthwort are employed.[2] Bartholomew of England, whose book on the properties of drugs was written in 1398, says : ' Aristologia is a full medycynall herbe though bytter.' [3]

There is a curious passage in the works of Paracelsus [4] that mentions aristolochia under its English name. ' Take Comfrey, Birth-wort, Adders tongue, marsh Buglosse, all of them, or which of them you will, take them green with their Roots ; then pour so much wine upon them as the wine may be above them ; then take two pots which are of the same bigness ; put your Herbs and the Wine in the one pot, and over this pot set your other pot ; lay clay about the mouthes of your pots, that no vapour can come out ; and set them over a slow fire ten hours, then take them out, strain and presse all the liquor well out of the Herbes ; to this liquor put some honey or fresh butter, and boyl it again to a consistence ; and then you have an Oyntment which you may trust to in the most difficult cures.' [5]

We now reach the large series of herbals of the sixteenth and seventeenth centuries. These are so numerous that, to avoid too much repetition, a selection must be made from this all too abundant material.

[1] *Knightes Tale*, lines 1853–6 (*Fermayces* = pharmacies.)
[2] G. Henslow, op. cit., p. 118, line 5.
[3] Bartholomaeus Anglicus, *Liber de Proprietatibus Rerum*, xvii, 14, 612. This work, though subsequently reprinted several times, is one of the rare incunabula of Wynkyn de Worde.
[4] As to Paracelsus, see p. 107 of this volume.
[5] *Paracelsus his Dispensatory, faithfully English'd by W. D.* (London, 1656), p. 195.

In the *Grete Herball*, an anonymous translation of the French *Grant Herbier*, printed by Peter Treveris in 1526, there is an echo of the ' delicate remedy for melancholia ' of Paulus Aegineta.[1] The herbalist states that the smoke of aristolochia ' maketh the pacyent mery mervaylously ' and also ' dryveth all devylleshnesse and all trouble out of ye house '. The devil-dispelling property of the plant is frequently mentioned in the medical manuscripts of the period.[2] The herbals usually are too wordy and their notices too long to quote, but as specimens the following extracts from the herbal of the astrologer Ascham may be given on account of their brevity :

' *Aristologia longa.* This herbe men do call it Red mader, the vertue of this herbe is thus. It wyll unbynge the stoppynge of the lyuer [liver] and lette passe euyll wyndes that be stopped within a mannes body, also yf it be drunken with wyne it clensethe and purgeth all men of all maner of venym that is in a mannes bodye. Also it clensethe and purgethe all maner of dyseases that be rotten within and withoute in the vaynes and in the teeth that ben rotten. This herbe is hoote and drye, and it must be gathered in harveste.' [3]

' *Aristologia rotun.* This herbe, aristologia rotunda men do call it Gallengale meke, the vertue of this herbe is thus as Ypochras [4] doth saye, yf the sayde herbe be dronken with hoote water, then it is medycynable, and curable for those menne that be stopped in the breast, and for the swelling euyll, and for the gout, and for the crampe, this herbe is hoot and dry, and it must be gathered in the harvest, and it is a spice of the reed Madder. Also this

[1] See above, p. 148.
[2] e.g. British Museum, MS. Sloane, 121.
[3] Anthonye Askham [Ascham], *A Lytel Herball of the Properties of Herbes* (London, February 12, 1550), s.v. *Aristologia longa.*
[4] Hippocrates.

herbe is very good for womennes deseases, and expelleth the dead chylde, and all other euyll humours that are inconvenient within the matryce of a woman if it be dronke with mirre and Pepper.' [1]

The learned author of these paragraphs has confused the two plants with the madder. The first he definitely says is the red madder, and the second ' a spice of reed Madder ', i.e. a species of red madder. He evidently had madder in mind when he says the herbs are to be gathered at harvest-time, for neither the long nor the round birthwort are British plants: to madder he has attributed the virtues of aristolochia. This is one of the many instances of the confusion that is met with at every turn in the works of the old writers on plants.

It may here be mentioned that aristolochia was also used as a veterinary medicine, for Leonard Mascall (died 1589) prescribes it for animals: ' Of Nettle Seed, of Aristolochy, of ech 2 drams.' [2]

Another confusion of names is to be found in the herbal of Rembert Dodoens (1517–85). In Lyte's translation the plant is called ' Sarrasines herbe or Aristoloche ', and it is ' called of some Birthwort and Hartwort '.[3] Hartwort, or heartwort, is the name usually given to seseli, or herb frankincense (*Laserpitum latifolium*). Dodoens gives a description of the various kinds of birthwort, with their virtues, which are similar to those already quoted, but he adds that the round kind is better than the long, and he repeats the statement of Dioscorides (as Ascham also does) that as a woman's medicine, aristolochia is to be taken with myrrh and pepper.

[1] A. Askham, op. cit., s.v. *Aristologia rotun*[*da*].

[2] L. Mascall, *The Countreyman's Jewel, or the Government of Cattell*, 2nd ed. (London, 1627), p. 128 (1st ed. 1596).

[3] *A Nievve Herball, or History of Plantes . . . nowe first translated out of French into English by Henry Lyte, Esquyer* (London, 1578), pt. 3, ch. i, pp. 312–14.

William Turner (born about 1510), who is often called 'the Father of British Botany', compiled a herbal which appeared in two parts, in 1551 and 1562 respectively. These were reissued in one volume in 1568,[1] from which the following passages are quoted: 'Aristolochia rotunda . . . may be called in Englyshe . . . round byrthewurte: because it helpeth wymen to bring furth theyr byrth.'[2] 'The Potecaries both in Germany and in England have abused in ye steade of the true Aristolochia rotunda/ caphnophragmite/ mētioned in Pliny/ which is very well called of ye Germanes holwurtz because ye rote is holow. But they have erred for this Holworte is nothing agreyng with the description of Aristolochia rotunda.'[3]

The most celebrated of the English herbalists, although the least deservedly so, is John Gerard (1545–1607). In his herbal he has a chapter headed 'Of Birthworts'.[4] His descriptions of the plant and its virtues contain nothing original. A better account is that of John Parkinson, 'the King's Herbarist' (1567–1650). He devotes a long chapter to a learned discussion of aristolochia, of which he describes eight different kinds. These, however, can be reduced to the three mentioned by earlier writers. He goes into a long discussion of the identity of the plants and the opinions of his predecessors, and, as usual, is freely critical. He discredits the story of Pliny relating to the effect of the plant upon fish, and believes that confusion had arisen between aristolochia and cyclamen. His account of the medicinal values of the plant is very full and detailed.[5]

Nicholas Culpeper (1615–54) in the sixth (last) edition

[1] *The First and Seconde Partes of the Herbal of William Turner . . . with the Thirde Parte lately gathered* (Cologne, 1568).

[2] Ibid., p. 57. [3] Ibid., p. 43.

[4] *The Herball or Generall Historie of Plantes* (London, 1636), bk. ii, ch. 311, pp. 846 sq. On the title-page of Gerard's *Herbal*, his name is spelt with a final *e*; this appears to be a mistake of the printer.

[5] John Parkinson, *Theatrum Botanicum: The Theater of Plantes, or an Herball of large extent* (London, 1640), ch. 43, pp. 290–5.

of his pharmacopoeia summarizes the uses of aristolochia root as follows: 'The long, being drunk in wine, brings away both birth and after-birth, and whatsoever a careless midwife hath left behind. The round, being drunk with wine, helps (besides the former) stuffings of the Lungs, hardness of the Spleen, ruptures, convulsions; both of them resist poyson. I never had any use of the climing Birthwort.'[1] The use of aristolochia as an antidote for poisons is very persistent. The astrologer and physician William Ramesey (Ramsay, born 1626, died about 1676) prescribes the root of the round kind as an antidote for 'bites of the Asp'.[2]

Towards the end of the seventeenth century the herbals were becoming superseded by a series of works less botanical and more medical in character, usually known as Dispensatories. These, like the herbals, are very numerous, and it will be possible here merely to give a few notes from them to exhibit their character. William Salmon (1644–1713) a well-known and daring quack who had a great reputation in his day,[3] includes 'Birthwort Round' in several of his emmenagogues,[4] and in a prescription to remove a dead foetus.[5] James Alleyne describes the three classical species, *Aristolochia longa*, *rotunda*, and *clematitis*. According to him the first two have the same properties, and he thus describes them: 'It is of subacrid and aromatic taste, and by all accounted a cleanser of the Womb, both as a provoker of the menstrual discharges and a forewarder of Delivery. It has ascrib'd to it also

[1] Nicholas Culpeper, *Pharmacopoeia Londiniensis*, 6th ed. (London 1659), p. 1.
[2] William Ramesey, *De Venenis, or a Discourse of Poysons* (London, 1663), p. 196.
[3] For the career of this remarkable man, see C. J. S. Thompson, *The Quacks of Old London* (London, 1928), pp. 125 sq.
[4] William Salmon, *Synopsis Medicinae*, 3rd ed. (London, 1695), pp. 779–80, Nos. 48, 52, 54; etc.
[5] Ibid., p. 813, No. 15.

some alexipharmic qualities, and is therefore in the composition of *Theriaca* and some others of the same tribe. 'Tis reckoned detergent externally and suppurative; for which reason it has a place in Stictic Plasters.' [1] Of the third species Alleyne says: 'This seldom comes into the shops or is used in medicine.'

In his great book of simples, Nicolas Lemery, a celebrated French physician, gives a description of four species, of which there are two kinds of round, two of long, two of climbing, and two of a smaller kind of aristolochia. These are all said to be detersive, vulnerary, and useful antidotes for poison and gangrene. The account is similar to that of Dioscorides. The roots are generally used, but the leaves are also employed. Lemery makes no mention of the plant as an assister of delivery, but he admits the etymology of the name in this association.[2]

In 1773 Dr. Robert Brookes published his dispensatory, which contains a translation of the pharmacopoeias of London and Edinburgh: *aristolochia longa* and *rotunda* were still 'official'. He describes the roots as being 'celebrated as warm Attenuants and Deobstruents, particularly in Suppressions of the Menses. The Dose is from a Scruple to a Dram and upwards'.[3] One further quotation must suffice: this is from the dispensatory of Dr. Robert James (1705–76). The three species are again described, the first two on the basis of Dioscorides. Of the third species it is said: 'The Moderns have found this Species to be aromatic, penetrating, aperient, sudorific, detergent and vulnerary. The Root, either in Powder or Extract, is recommended in the Hysteric Passion, leucophlegmatic Cachexies, Asthmas, and Intermittent Fevers,

[1] James Alleyne, *The New English Dispensatory* (London, 1733), p. 56. The reference to *Theriaca* is to the work of Nicander of Colophon. See above, p. 144.

[2] Nicolas Lemery, *Traité Universel des Drogues Simples*, 3rd ed. (Paris, 1723), p. 76.

[3] Robert Brookes, *General Dispensatory* (London, 1773), p. 9.

where the intentions of Heating and Resolution are to be pursued.' [1]

In modern pharmacy aristolochia is a preparation of the dried stems and roots of an Indian species (*A. indica*, L.), which is used for its bitter properties. It has a camphoraceous odour and taste. In India and the Eastern colonies it is official as an aromatic bitter, *Tinctura aristolochiae*.

In the above series of quotations the history of aristolochia has been traced over a period of twenty-two centuries. On comparing the various accounts of its use one cannot fail to notice the persistence of the classical tradition. It is quite evident that Dioscorides and Pliny are the principal sources from which the later writers derived most of their information. To the nucleus of the classical authors new elements attach themselves from time to time. In spite of claims to originality repeatedly asserted by the compilers of the herbals and dispensatories, the habit of plagiarism, conscious or unconscious, is too obtrusive to escape notice. It is, moreover, evident that many of the writers, deriving their information from classical sources or from the medical manuscripts of the Dark Ages, frequently find themselves describing plants they had never seen and which do not grow in their native soil. To this fact may be attributed the frequent confusion in nomenclature.

In the works of the writers cited above the name *aristolochia* is corrupted successively to aristologia, astrologia, astrolochie, aristolongia, etc.,[2] and it has been equated with smearwort, hartwort, madder, paciencia, *Malum storacis*, strongilis, galingale and other plants. By such

[1] Robert James, *Pharmacopoeia Universalis, or A New Universal Dispensatory*, 2nd ed. (London, 1752), p. 150.

[2] In the manuscripts collated by E. Howald and H. E. Sigerist for their edition of Pseudo-Apuleius, the following variants are noted : aristologia, austrelogia, aristolacia, aristolatia, and aristocia (*Corpus Medicorum Latinorum*, vol. iv, [Leipsic, 1927], p. 56).

confusion of names, the genuine properties of one herb are often transferred by early writers to entirely different herbs that possess no such properties. Several such cases have already been noted in passing, but one more may be mentioned—that of hartwort. This, as was observed when reference was made to the herbal of Dodoens, is the name usually given to seseli. Topsell follows Dodoens, and speaks of ' aristoloch, otherwise called Round Hartwort ',[1] and of ' Long Aristolochie or Hartwort '.[2] Gerard, on the other hand, says that heartwort (hartwort) is a species of mint, often called heartmint,[3] and Parkinson rightly confines the word to the various species of seseli.[4] Anthony Ascham speaks of *Aristolochia rotunda* as being the same as galingale and as a kind of red madder.[5] The former is a species of sedge, and both are totally different in structure and properties from birthwort. The greatest caution is necessary in attempting to identify plants from the accounts of early botanical writers.

Another point worthy of note is the fact that the property that gave the herb its name (both Greek and English) is least often referred to. The outstanding merits of birthwort seem to have been its supposed efficacy in the treatment of wounds and as an antidote for poisons.

[1] Edward Topsell, *Historie of Foure Footed Beastes* (London, 1607), p. 269.

[2] Edward Topsell, *Historie of Serpents, or the Seconde Book of Living Creatures* (London, 1608), p. 775. This work and that cited in the previous note were re-edited in one volume by John Rowland in 1658.

[3] John Gerard[e], *The Herball or Generall Historie of Plantes* (London, 1633), p. 681.

[4] John Parkinson, *Theatrum Botanicum : The Theater of Plantes* (London, 1640), p. 703.

[5] Anthonye Askham, *A Lytel Herball of the Properties of Herbes* (London, 1550). See above, p. 155.

## CHAPTER VIII

# MUMMY AS A DRUG

'And these dead bodies are the Mummie which the Physitians and Apothecaries do against our willes make us to swallow.'
Richard Hakluyt (1598).

'Mummy is become merchandize, Mizraim cures wounds, and Pharaoh is sold for balsams.'—Sir Thomas Browne, *Hydriotaphia* (1658).

IT is a well-known fact that throughout the Middle Ages, and long after their close, *mummy* was an important article in the stock-in-trade of the apothecary. Its efficacy was held in high esteem, and commercially it commanded a good price. An extensive trade was carried on between European apothecaries and their agents in Egypt, Syria, and other places in the East, who supplied the mummies from which the drug was obtained. In the following paragraphs an attempt will be made to trace in outline the history of mummy as a drug, for its reputation was founded primarily upon the medicinal properties of a natural product that was known to the ancients, but had really no connexion at all with mummies, that is to say, with embalmed human bodies.

Pliny describes the bitumen produced by the Dead Sea (Lake Asphaltites),[1] and states that it was collected and manufactured by a people called the Deximontani.[2] Elsewhere Pliny gives more explicit details. He describes several different kinds of bitumen: *limus* from a lake in Judaea, *terra* from the neighbourhood of Sidon, and *liquidum*, which was white, from Babylonia. He also mentions a liquid bitumen from Apollonia. All these, he states, were called by the Greeks *pissasphaltum*, and notes

[1] Pliny, *Natural History*, v, 15. [2] Ibid., vi, 26.

further that an oily variety from Sicily was used as lamp-oil and for treating scabies in cattle.[1] All these varieties were much in request as drugs, and the merchants were wont to eke out their supplies by adulterating the pure drug with pitch. Pliny then specifies the therapeutic uses of bitumen. The Babylonian kind, he says, is good for cataract and other affections of the eyes, and is efficacious also for various skin-diseases—lichen, leprosy, itch—and also for gout. All kinds are good for the eyelashes (that is to say, for trachoma and other ophthalmic complaints affecting the eyelids), and for the teeth, if mixed with nitre. As a potion, bitumen taken with wine cures coughs and shortness of breath and is a remedy for dysentery. Taken with vinegar it removes clotted blood, and assuages pain arising from rheumatoid troubles in the lumbar region and in the joints. For quartan fever it is administered with mint (*hedyosmus*) and with myrrh. Bitumen is also put to gynaecological uses ; inhaled with wine and castoreum as a fumigation, and as a draught if taken with wine. Finally, made into a plaster with flour it is a good haemostatic and heals wounds.[2]

Diodorus Siculus speaks at some length of bitumen from Babylonia and from the Dead Sea, and of its medicinal values.[3] He describes in some detail the arduous and difficult method of collecting it by the natives and of its dangerous effects on their health. He states that the barbarians who collect bitumen derive great revenues from trading it. They export it to Egypt, where it is sold for embalming the dead. For this purpose it is mixed with other spices, for without such admixture it would not

[1] Cf. Virgil, *Georgics*, iii, 448–51 (referring to sheep) :

Aut tonsum tristi contingunt corpus amurca,
Et spumas miscent argenti vivaque sulpura
Idaeasque pices et pinguis unguine ceras
Scillamque elleborosque gravis nigrumque bitumen.

[2] Pliny, *Natural History*, xxxv, 51.

[3] Diodorus Siculus, ii, 12 and 48.

preserve bodies permanently from decay.[1] Strabo also states that asphaltum or bitumen was used by the Egyptians for embalming.[2]

Dioscorides describes two similar drugs, *asphaltos* and *pissasphaltos*, one of which, he says, comes from the mountains. His account of the drugs and their uses is similar to that of Pliny.[3] It is not necessary to go more fully into the accounts of classical writers who deal with asphalt or bitumen, but it may be noted that the medical writers often employ it in their prescriptions. Thus Celsus uses bitumen for *nervorum dolor*, for dispensing pus, and for removing congestion in any part of the body.[4] Flavius Josephus describes the peculiar properties of the lake that produces asphalt, and adds: 'This asphalt is useful not only for the caulking of ships, but for the cure of men's bodies; accordingly it is mixed in a great many medicines.'[5] By later writers bitumen as a drug was widely used: Paulus Aegineta, for instance, recognized the virtues of *bitumen judaicum* from the Dead Sea,[6] and the substance, sometimes called *mumia*, occurs again and again in the Syriac medical books.[7]

*Mumia*, from which our word 'mummy' is derived, is of Persian origin,[8] and primarily meant 'wax',[9] but it was used also to denote the natural bitumen that issues from the 'Mummy Mountain', in the territory of Darab (formerly called Darabgerd, 'Darius-town'), in the province of Fars in Persia. The spot was visited by the well-known

[1] Diodorus Siculus, xix, 99.

[2] Strabo, xvi, 2, 45: *χρῶνται δ' Αἰγύπτιοι τῇ ἀσφάλτῳ πρὸς ταριχείας τῶν νεκρῶν.*

[3] Dioscorides, *De Materia Medica*, i, 100, *ἀσφάλτος*; i, 101, *πισσασφάλτος.*

[4] Celsus, *De Medicina*, iii, 27, 2; iii, 5, 3; iii, 5, 11, etc.

[5] Josephus, *Bella*, iv, 8, 4.

[6] Paulus Aegineta, iii, 54, 78, 97, 130, and often.

[7] E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics · The Book of Medicines* (Oxford, 1913), index, s.v.

[8] *Mûmiya*, مومیا.

[9] Persian, *mûm*, موم. 'wax'.

traveller and Persian scholar, Sir William Ouseley (1767–1842), and he describes the ' mummy ' as dark bituminous matter oozing from the rock. The Persians thought this material more precious than gold, and ascribed to it wonderful healing virtues, especially in the treatment of fractures. Ouseley quotes from a manuscript of the tenth century which describes the mountain and its precious product. It was carefully guarded, and the ' mummy ' was allowed to accumulate and was collected for the king annually. The quantity of bitumen thus obtained was very small, and it was treated as an article of great value and stored in the Royal Treasury.[1]

The Persian word was adopted by the Arabs, and was applied not only to the drug, but to the bitumen of the Dead Sea and to the ' bitumen ' with which mummies were embalmed in Egypt. The statement, still commonly repeated by modern writers, that bitumen was the staple embalming material of the ancient Egyptians is erroneous. Bitumen was probably never used for this purpose, and it has never been identified in many samples that have been analysed by modern chemists. This erroneous tradition has probably arisen from the statements of Diodorus Siculus and of Strabo, quoted above, and partly because many resins, and bodies treated with resin, are black and lustrous and simulate bitumen, but the resemblance is delusive. If, indeed, bitumen was used by the Egyptians in embalming, it has so far eluded modern scientific research.[2] Neither Herodotus[3] nor Diodorus

[1] W. Ouseley, *Travels in Various Countries of the East* (London, 1819–23), vol. ii, pp. 117 sq.

[2] Mr. A. Lucas has analysed a vast number of specimens of the black preservative material from mummies of all periods in the Government Laboratories at Cairo, and in every case the samples proved to be resinous and not bituminous (A. Lucas, *Preservative Materials Used by the Ancient Egyptians in Embalming* [Cairo, 1911], pp. 34 sq.). I have submitted many samples for analysis from mummies in this country with the same result.

[3] Herodotus, ii, 85–8.

Siculus,[1] in their well-known accounts of Egyptian embalming, mentions bitumen, although other preservative agents are named. From the belief that bitumen was used in the preparation of mummies, the term ' mummy ' was applied, not only to the material, but to the bodies themselves.

Avicenna (980–1037) describes *mumia* as useful for a variety of purposes, including abscesses, eruptions, fractures, concussions, paralysis, affections of the throat, lungs, and heart, debility of the stomach, disorders of the liver and spleen, and as an antidote for poisons.[2] He considered *mumia* especially valuable for contusions.[3] 'Ibn al-Beithar summarizes the therapeutic uses of this drug from the works of a number of Jewish and Arabic physicians. These all refer to the natural bitumen of the Dead Sea and of Persia and not to *mumia* derived from embalmed bodies. The author adds some observations of his own, in which he describes various kinds of natural bitumen and distinguishes two of them under the names of ' Jew's bitumen ' and ' bitumen of the tombs '.[4] Of the latter, he says that abundant supplies are derived from Egypt, for it was a preparation with which the *Greeks* [5] treated the bodies of their dead in order to preserve them. It is evident, however, from the whole account of Ibn al-Beithar that the drug he is describing is the same as that mentioned by Dioscorides, whom, also, he quotes.[6]

Passing now from the classical and oriental authors, we

[1] Diodorus Siculus, i, 91.

[2] *Canon Medicinae, vel Opera*, Venice (*apud* Juntas, 1608), folio edition, vol. ii, p. 348 : ' Mumia calida est in fine tertii sicca prout creditur in primo. Inest autem ei proprietas omnem spiritum confortandi, quod adjuvat continuativa viscositas ' ; Ibid., vol. i, bk. ii, p. 357.

[3] Ibid., vol. i, bk. iv, p. 151 : ' De medicinis autem quas oportet sumere illum, qui patitur contusionem, aut offensionem, aut casum melior, et antecedens est mumia pura cum oleo nominato sambacino et vino.'

[4] قفر اليهود and مرميا قنوراى.

[5] الروم.

[6] *Book of Simples*, s.v. مرميا; L. Leclerc, ' Traité des Simples par Ibn el-Beithar ', No. 2190, *Notices et Extraits des Manuscrits de la*

find mummy frequently mentioned in the works of their European successors. A perusal of the early medical books, both manuscript and printed, of Britain, France, Germany, and elsewhere, from the earliest extant to the seventeenth century, and even later, will yield almost innumerable instances of the use of mummy as a drug, and to give a representative series of extracts would not only occupy much space, but would involve much repetition. It will be necessary, however, to refer to a few of them.

Guy de la Fontaine, physician to the King of Navarre, made a journey to the East in 1564 and visited Alexandria for the express purpose of making inquiries into the use and supply of mummy, a drug of great popularity in Europe in his time. He was a friend of the celebrated surgeon Ambroise Paré (1509–90), who himself had written on the subject of mummy, but condemned its use in strong terms. Paré asserted that neither the doctors who prescribed it, the apothecaries who sold it, nor the patients who consumed it had any real knowledge of its origin and nature. 'This wicked kind of drugge,' he wrote, 'doth nothing help the diseased, in that case wherefore and wherein it is administered, as I have tryed an hundred times, and as Thevet witnesses, he tryed it himselfe when as he tooke some thereof by the advice of a certaine Jewish physition in Egypt, from whence it is brought; but it also inferres many troublesome symptomes, as the paine of the heart or stomacke, vomiting and stinke of the mouth . . . I, perswaded by these reasons, doe not only not myselfe prescribe any thereof to my patients, but also in consultations, endeavour what I may, that it bee not prescribed by others.' [1]

*Bibliothèque Nationale*, vol. xxvi (Paris, 1883), p. 346. See also the editor's note on p. 348 and Silvestre de Sacy, *Relation de l'Égypte d'Abd Al-Latif* (Paris, 1810), pp. 201 sq.

[1] *The Workes of that Famous Chirurgion Ambrose Parey* (London, 1634), p. 448.

It will presently be seen why Paré denounced a drug which had such popularity in his day, and which was recommended by the most eminent physicians, especially in France. It is stated by Belon that the king François I always carried a preparation of mummy about with him for immediate use should accident or sickness overtake him, such was his belief in its efficacy.[1] But although doctors recommended mummy, the patients who took it did not always relish it: 'And these dead bodies are the Mummie which the Physitians and Apothecaries do against our willes make us to swallow.'[2] The natural bitumen of the Dead Sea and elsewhere, of which Pliny and others speak, was in many cases a rational and wholesome drug, even if it did not achieve all that was claimed for it. So long as the supply of mummy used in medicine came from such natural sources, little harm could have resulted from its use when prescribed by a competent physician. But at least as early as the twelfth century, and possibly earlier, the Jews in Alexandria were obtaining for export supplies of what they believed to be bitumen (really resin) by breaking up Egyptian mummies that had been prepared with it. By ransacking the tombs, the purveyors of Alexandria recruited their stocks. In the course of time the belief was encouraged that mummy was not efficacious as a drug unless it had been obtained from a human body, and the search for mummies, at first carried on surreptitiously, was thenceforth exploited openly as the only source from which medicinally effective mummy could be obtained. As the demand for human mummy increased, so the supply became more and more restricted, and the

[1] Pierre Belon (Petrus Bellonius), *Les Observations de plvsievrs singvlaritez et choses memorables trouuées en Grèce, Asie, Indée, Égypte*, etc. (Paris, 1553), p. 261.

[2] Richard Hakluyt, *The Principall Navigations, Voiages and Discoveries of the English Nation*, etc. (London, 1598–1600), vol. ii, pt. 1, p. 201.

Egyptian Government naturally endeavoured to prohibit this traffic in dead bodies. Hence arose an incentive for fraud, which, once conceived, was carried out on an extensive scale. If genuine Egyptian mummies could not be obtained, the purveyors were obliged to consider other methods of supply. They solved the problem by manufacturing spurious substitutes. During the visit of La Fontaine to Alexandria, to which reference has been made, the principal figure in the mummy-trade, a Jew of Alexandria, was interviewed by him. The trader exhibited his stock of mummies, some forty or so in number, and informed La Fontaine that he had himself prepared them all within the last four years. His practice was to collect the bodies of slaves, or those of any other persons he could lay his hands upon, to open them, and to fill them with bitumen. This was done through the natural openings of the body, and by means of incisions made for the purpose. The bodies thus medicated were bandaged and dried in the sun, and the resulting preparations so closely simulated genuine ancient Egyptian mummies that the fraud was difficult to detect. In the course of his inquiries La Fontaine asked if any of these bodies had died of disease or of plague. This question was met by the complacent answer that so long as bodies were obtained, it mattered not to those who prepared them in what condition they might be.[1]

Such is the description of the source of the supply of mummy for the apothecaries' shops of Europe that was related to Paré on the traveller's return to France, and it is therefore scarcely surprising that the denunciation quoted above should follow. Paré's condemnation, however, did not convince all the physicians of the evils of mummy-medicine. It must not be forgotten that magic

[1] The foregoing narrative is based upon the statements in the *Discours d'Ambroise Paré* (Paris, 1582), pp. 7 sq.

still played a considerable part even in rational medicine. Mummy, once established as a drug, was not so easily dislodged from its place in an age paralysed by precedent and tradition. The bitumen or mummy used for medicinal purposes was first derived from natural sources ; the next stage was the pitch-like resinous substance obtained from mummified human bodies, and, finally, it was forgotten that it was the properties of the bitumen that were efficacious in medicine, and the virtue was transferred to the bodies themselves. Consequently in numerous medical books, as well as in collections of popular remedies, mummy still held its place long after the time of Paré.[1]

Theophrastus Bombast von Hohenheim (Paracelsus, 1493–1541) devised a ' balsam of mummy ' and a ' treacle of mummy ' that were kept in vogue a century or more after his death.[2] The herbalists of the seventeenth century likewise kept the tradition alive. Thus John Parkinson (1567–1650) in his great herbal devotes a long chapter to the virtues of mummy ; he describes it as being ' of much and excellent use in all countries of Europe '. It is ' the very body of a man or woman brought chiefly from Egypt or Syria (no other part of the world so good) '. True mummy, according to this writer, must be embalmed in the Egyptian fashion, and not after the manner of the Jews, nor with Pissasphaltum. Parkinson was unconsciously right in discerning that true Egyptian mummies were not prepared with bitumen. He gives a crude woodcut of the mummy of a bearded man lying beside its sarcophagus.[3]

[1] The references to ' mummy ' in medical books and pharmacopoeias of the sixteenth, seventeenth, and eighteenth centuries are so numerous that it would require several pages of this volume merely to transcribe the titles of those (by no means an exhaustive collection) that I have gathered into my note-books.

[2] *Paracelsus his Dispensatory and Chirurgerie faithfully English'd by W. D.* (London, 1626), pp. 108 sq.

[3] John Parkinson, *Theatrum Botanicum: The Theater of Plantes, or an Herball of large extent* (London, 1640), p. 1592.

It is thus evident that in the current opinion of the time the virtue of mummy lay, not in the bituminous (really resinous) preparation of the corpse, but in the actual corpse itself. The idea gained ground, and the alleged virtue of mummy—the original *mumia*—gave place to that of the flesh itself, that is to say, to the flesh of any dead body, not necessarily that of an Egyptian mummy. Nicolas Lemery (1645–1715) states that the original mummy was derived from Egypt, but in his time other sources were being exploited, Egyptian mummies then being rare curiosities, kept in the cabinets of collectors, and not used as sources of medicine. He affirms that the apothecaries' supplies were obtained from other sources.[1] Desiccated bodies buried in the Lybian sands were in demand, a fact to which Athanasius Kircher (1601–80), the learned Jesuit, also refers.[2] Guanche mummies from the Canary Islands were also exported to Europe for the apothecaries.[3] Already Oswald Croll (Crollius, 1580–1609) had prescribed a kind of mummy to be made out of the body of a felon who had been hanged: preferably that of a man of ruddy complexion, and about twenty-four years of age. Crollius even recommends as superior in virtue flesh cut from the thighs or buttocks of a living man! The flesh must be cleaned, the arteries, nerves, and grease removed, washed in spirits of wine, and exposed to the influence of the sun and the moon for seven days. The medicated flesh then receives further treatment, detailed at length, with myrrh aloes, saffron, and other drugs.[4]

The word 'mummy' at last lost its connexion with the human body, and became a term for medicated flesh in

[1] Nicolas Lemery, *Traité Universel des Drogues Simples*, 3rd ed. (Paris, 1723), p. 365.
[2] J. N. Gannal, *Histoire des Embaumements*, 2nd ed. (Paris, 1841), p. 76, note 1.
[3] E. A. Hooten, *Harvard African Studies*, vol. viii (Cambridge, Mass., 1925), p. 39.
[4] J. N. Gannal, op, cit., pp. 49–50.

general. Thus Nicholas Culpeper (1616–54) in one of his prescriptions says : ' Take a Jay, pull off her feathers, and pull out her guts, then fill her belly full of Cummin-seeds : then dry her in an Oven, till she be converted into Mummy.'[1] In another, he says : ' Take an Owl, pull off her feathers, and pull out her guts, salt her well for a week : then put her into a pot and stop it close, and put her in an oven. So she may be brought into Mummy ',[2] and again : ' Also take notice, that the foregoing way is the best way to convert any thing into Mummy ; and so the Jay before mentioned is to be used.' [3] Later on still the word ' mummy ' passed out of medical cognizance and became a term in cookery. In a famous cookery-book of the eighteenth century the directions for preparing a dish include the following phrase : ' It must be very thick and dry, and the rice not boiled to a mummy.' [4]

Amongst serious practitioners mummy had to a great extent lost favour before the middle of the eighteenth century, although it survived long after in popular books of prescriptions and remedies. The following entry from a ' Dispensatory ' indicates the waning reputation of the drug : ' *Mummy—Mumia.* This is the flesh of carcases which have been embalm'd. But altho' it yet retains a place in medicinal catalogues, it is quite out of use in Prescription. What virtues have been ascribed to it are the same with Parmassity and other balsamics of the kind.' [5]

[1] *Culpeper's Last Legacy* (London, 1761), p. 75.
[2] Ibid., p. 77. [3] Ibid., p. 78.
[4] *Mrs. Glasse's Art of Cookery* (London, 1747), vi, 130. The first edition of this remarkable work appeared in 1747, anonymously, as *The Art of Cookery made Plain and Easy*, By a Lady ; within the same year a second was issued. It passed through about fifty editions, and was the counterpart, in the eighteenth century, of ' Mrs. Beeton ' in the nineteenth.
[5] James Alleyne, *New English Dispensatory* (London, 1733), p. 152. Twenty years later, however, Dr. Robert James includes *mummy* in his *Pharmacopoeia Universalis* (1752), p. 340, without any hint that its use had become obsolete.

The use of mummy in medicine was so well known amongst the general population as apart from the physicians, that references to it are frequent in popular literature. Shakespeare, for instance, several times alludes to it. 'Witches' mummy' is one of the uncanny ingredients in the cauldron in *Macbeth* (Act iv, Scene 1); in the *Merry Wives of Windsor*, Falstaff declares: 'Water swells a man, and what a thing should I have been when I had been swelled! I should have been a mountain of mummy' (Act iii, Scene 5). Othello's handkerchief, which had great virtues, 'was dy'd in mummy, which the skilful conserv'd of maidens' hearts' (*Othello*, Act iii, Scene 4). Again, in the *Honest Lawyer* of James Shirley (1596–1666) it is said: 'That I might tear their flesh in mammocks, raise my losses, from their carcasses turn'd mummy,' and in *The Bird in a Cage*, 'Make mummy of my flesh and sell me to the apothecaries.' Sir Thomas Browne (1605–82), writing in a graver vein, made the following utterance in reference to fame after death (*Hydriotaphia*, 1658, Ch. V): 'Egyptian ingenuity was more unsatisfied, contriving their bodies in sweet consistencies, to attend the return of their souls. But all was vanity, feeding the wind, and folly. The Egyptian mummies, which Cambyses or time hath spared, avarice now consumeth. Mummy is become merchandize, Mizraim cures wounds, and Pharaoh is sold for balsams.'

# BIBLIOGRAPHY

## OF WORKS QUOTED OR REFERRED TO IN THIS VOLUME


ABD AL-LATIF. *See* SILVESTRE DE SACY.

ABD AR-RAZZAQ, كشف الرمز. Edited by L. LECLERC, q.v.

ABERCROMBY, J.: *Folk Lore Journal*, vol. vii, London, 1899, p. 77.

AELIAN: *De Natura Animalium.*

AESCHYLUS: *Eumenides.*

—— *Suppliants.*

ALBERTUS MAGNUS: *De Mirabilibus Mundi.*

ALLEYNE, JAMES: *New English Dispensatory*, London, 1733.

ANDERSON, C. J.: *Lake Njami*, 2nd ed., London, 1856.

ANDREE, R.: *Braunschweiger Volkskunde*, Brunswick, 1896.

APOLLODORUS: *Bibliotheca.*

APOLLONIUS RHODIUS: *Argonautica.*

APULEIUS BARBARUS. *See* PSEUDO-APULEIUS.

ARCANA CURIOSA, *or, Modern Curiosities of Art and Nature*, translated from the French [of Nicolas Lemery], London, n.d. [frontispiece dated 1711].

ARISTOPHANES: *Acharnians.*

—— *Birds.*

—— *Clouds.*

—— *Ecclesiazusae.*

—— *Lysistrata.*

ARISTOTLE: *Historia Animalium.*

—— *Metaphysica.*

ASKHAM [ASCHAM], A.: *A Lytel Herball of the Properties of Herbes by Anthonye Askham, Physition*, London, 1550.

ATHENAEUS: *Deipnosophistae.*

AVICENNA [ABU ALI AL-HUSAIN IBN ABDALLAH IBN SINA]: *Canon Medicinae, vel Opera*, Venice, 1608, folio edition, 2 vols. [An octavo edition was published in the same year.]

BALL, KATHARINE M.: *Decorative Motives of Oriental Art*, 2nd ser., § 34. *Japan*, vol. xiii, No. 3, San Francisco, 1923, pp. 14, 15.

BARING-GOULD, S.: *Curious Myths of the Middle Ages*, London, 1877.

BARTHOLOMAEUS ANGLICUS: *Liber de Proprietatibus Rerum.*

BATCHELOR, JOHN: *The Ainu of Japan*, London, 1892.

BEECHEY, F. W.: *Narrative of a Voyage to the Pacific and Beering's Strait*, London, 1831.

BEKKER, IMANUEL: *Scholia in Platonem*, London, 1824.

BELON, PIERRE [PETRUS BELLONIUS]: *Les Observations de plvsievrs singvlaritez et choses memorables trouuées en Grèce, Asie, Indée, Égypte, Arabie et autres pays étranges*, Paris, 1553.

BÉNÉDITE, GEORGES: *Recueil d'Études Égyptologiques dediées à la mémoire de Jean-François Champollion*, Paris, 1922, pp. 23 sq. [*Bibliothèque de l'École Des Hautes Études, Sciences Historiques et Philologiques, 234e fascicule*].

BERNHARDY, G.: *Suidae Lexicon*, Brunswick, 1853.

BILLSON, C. J.: *County Folk Lore: Leicestershire and Rutland*, London, 1895.

BIRCH, SAMUEL, in F. CHABAS, *Mélanges Égyptologiques*, 2nd ser., vol. ii, Paris, 1864, pp. 324 sq.

—— *Inscriptions in the Hieratic and Demotic Character*, London, 1868.

BIRLINGER, A.: *Volksthümliches aus Schwaben*, Freiburg, 1861.

BLACKMAN, AYLWARD M.: *The Rock Tombs of Meir*, pt. i, London, 1914.

BLACKMAN, WINIFRED, S.: *The Fellahîn of Upper Egypt*, London, 1927.

BOTTI, G., and PEET, T. E.: *Il Giornale della Necropoli di Tebe*, Turin, 1928.

BOURIANT, URBAIN : *Receuil de Travaux relatifs à la Philologie et à l'Archéologie Égyptiennes et Asyriennes*, t. xiii, Paris, 1891, p. 169.

BRAND, JOHN : *Observations on the Popular Antiquities of Great Britain*, ed. Sir Henry Ellis, London, 1849. 3 vols.

BREASTED, JAMES HENRY : *Ancient Records of Egypt*, Chicago, 1905. 5 vols.

—— *A History of Egypt*, 2nd ed., London, 1919.

BROOKES, ROBERT : *A General Dispensatory*, London, 1773.

BROWN, G. : *Polynesians and Melanesians*, London, 1910.

BRUGSCH, HEINRICH : *Zeitschrift für ägyptische Sprache*, Bd. xiii, Leipsic, 1875, p. 125.

—— ibid., Bd. xiv, 1876, p. 96.

—— *Thesaurus Inscriptionum Aegypticarum*, Leipsic, 1883–91. 6 vols.

BUDGE, E. A WALLIS : *The History of Alexander the Great ; being the Syriac Version of the Pseudo-Callisthenes*, Cambridge, 1889.

—— *Facsimiles of the Papyri of Hunefer, Anhai, Kerasher and Netchemet, with supplementary text from the Papyrus of Nu*, London, 1899.

—— *A History of Egypt*, London, 1902. 8 vols.

—— *A Guide to the Egyptian Galleries (Scultpure), in the British Museum*, London, 1909.

—— *Egyptian Hieratic Papyri*, 2nd ser., London, 1921.

—— *Osiris and the Egyptian Resurrection*, London, 1911. 2 vols.

—— *Syrian Anatomy, Pathology and Therapeutics, The Book of Medicines*, Oxford, 1913. 2 vols.

—— *The Book of the Dead, Translation*, 2nd ed., London, 1923. 3 vols.

CAMERON, V. L. : *Across Africa*, London, 1877.

CANZANI, ESTELLA : *Folk Lore*, vol. xxxix, London, 1928, p. 212.

CAPART, JEAN : *Egyptian Art : Introductory Studies*, translated by Warren R. Dawson, London, 1923.

Cassius Felix : *De Medicina.*

Cecil, Lady William : *Bird Notes from the Nile*, London, 1904.

Celsus : *De Medicina.*

Chambers, E. : *The Book of Days*, Edinburgh and London, n.d. [1862–4]. 2 vols.

Chassinat, Émile : *Un Papyrus Médical Copte*, Cairo, 1921. [*Mémoires de l'Institut Française d'Archéologie Orientale*, t. xxxiii].

Cicero : *De Divinitate.*

—— *De Natura Deorum.*

—— *In Verrem.*

Cockayne, Oswald : *Leechdoms, Wortcunning and Starcraft*, London, 1864. 3 vols.

Codrington, R. H. : *The Melanesians*, Oxford, 1891.

Comrie, P. : *Journal of the Royal Anthropological Institute*, vol. vi, London, 1877, p. 108.

Cook, James : *The Voyages of Captain James Cook round the World*, London, 1809. 7 vols.

Cornish, F. Warre : *A Concise Dictionary of Greek and Roman Antiquities*, London, 1898.

Crawfurd, Raymond : *Plague and Pestilence in Literature and Art*, Oxford, 1914.

Crawley, Ernest : *The Mystic Rose*, 2nd ed., revised by Theodore Besterman, London, 1927. 2 vols.

—— *Studies in Savages and Sex*, edited by Theodore Besterman, London, 1929.

Crooke, W. : *Folk Lore Record*, vol. iv, London, 1881, p. 135.

Crum, W. E. : *Catalogue of the Coptic Manuscripts in the John Rylands Library*, Manchester, 1909.

Culpeper, Nicholas : *Pharmacopoeia Londiniensis*, 6th ed., London, 1659.

—— *Culpeper's Last Legacy*, London, 1671.

Daremburg, C., and Saglio, E. : *Dictionnaire des Antinquités grecques et romaines*, Paris, 1877, etc.

DARESSY, GEORGES : *Recueil de Travaux relatifs à la Philologie et à l'Archéologie Egyptiennes et Asyriennes*, t. xix, Paris, 1897, p. 23.

DAVIES, NORMAN DE G. : *The Mastaba of Ptahhetep*, pt. ii, London, 1901.

—— *The Rock Tombs of Sheikh Said*, London, 1901.

DAWSON, WARREN R. : *Ægyptus*, vol. viii, Milan, 1927, p. 97.

—— *The Custom of Couvade*, Manchester, 1929.

—— *Magician and Leech*, London, 1929.

DAY, FRANCIS : *The Land of the Permauls*, Madras, 1863.

D'ENJOY, P. : *Bulletins de la Societé d'Anthropologie de Paris*, 4th ser., vol. viii, Paris, 1897, pp. 181 sq.

DEVAUD, EUGENE : *Les Maximes de Ptah-hotep*, Fribourg, 1916.

DEVERIA, T. : *Catalogue des Manuscrits Egyptiens du Musée du Louvre*, Paris, 1881.

DINDORF, GULIELMUS(=WILHELM) : *Harpocrationis Lexicon*, Oxford, 1853.

—— *Flavii Josephi Opera*, Paris, 1847.

DIODORUS SICULUS : *Bibliotheca Historica*.

DIONYSIUS : *De Avibus*.

DIOSCORIDES : *De Materia Medica*.

DISELDORF, E. P. : *Zeitschrift für Ethnologie*, Bd. xxxvi, Berlin, 1894, pp. 576 sq.

DITCHFIELD, P. H. : *Country Folk*, London, 1923.

DOBSON, G. E. : *Monograph of the Asiatic Chiroptera*, London, 1876.

DODOENS, REMBERT : *A Nievve Herball, or Historie of Plantes : wherein is contayned the vvhole discourse and perfect description of all sortes of Herbes and Plantes. . . . First set foorth in the Doutche or Almaigne tongue, by that learned D. Rembert Dodoens, Physitian to the Emperour : And nowe first translated out of French into English by Henry Lyte, Esquyer*, London, 1578.

DRUCE, G. C. : *Journal of the British Archaeological Association*, London, Dec. 1919, p. 69.

DUCANGE, CHARLES DUFRESNE : *Glossarium ad Scriptores mediae et infirmae graecitatis*, Lyons, 1688.

DUNCOMBE, JOHN: *Letters from Several Eminent Persons Deceased*, 3rd ed., London, 1773. 3 vols.

ELLIS, WILLIAM: *Polynesian Researches*, 2nd ed., London, 1832. 3 vols.

ERMAN, ADOLF: *Zeitschrift für ägyptische Sprache*, Bd. xv, Leipsic, 1877, p. 47.

—— ibid., Bd. xxi, 1883, p. 54.

—— *Denkstein aus der thebanischer Graberstadt*, Berlin, 1911. [*Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, Bd. xlix, pp. 1086–1110.]

—— *Zaubersprüche für Mutter und Kind*, Berlin, 1901. [*Abhandlungen der Königlich Preussischen Akademie der Wissenschaften.*]

—— *The Literature of the Ancient Egyptians*, translated by A. M. Blackman, London, 1927.

——, and GRAPOW, H.: *Wörterbuch der ägyptischen Sprache*, Leipsic, 1925, etc.

EURIPIDES, *Electra.*

—— *Iphigenia in Tauris.*

FARNELL, L. R.: *The Cults of the Greek States*, Oxford, 1896–1909. 5 vols.

FLOWER, W. H., and LYDEKKER, R.: *An Introduction to the Study of Mammals, Living and Extinct*, London, 1891.

FOWLER, W. WARDE: *Classical Review*, London, Nov., 1892.

FRAZER, J. G.: *The Golden Bough*, 3rd ed., London, 1911–13. 12 vols.

—— *The Description of Greece by Pausanias*, 2nd ed., London, 1913. 6 vols.

—— *Totemism and Exogamy: A Treatise on Certain Early Forms of Superstition and Society*, London, 1910. 4 vols.

—— *Apollodorus: The Library*, London, 1921. 2 vols.

—— *The Fasti of Ovid*, London, 1929. 5 vols.

—— *Myths of the Origin of Fire*, London, 1930.

FRIEDERICI, GEORG: *Der Tränegruss der Indianer*, Leipsic, 1907.

FRIEND, H. : *Folk Lore Record*, vol. iv, London, 1881, p. 85.

GANNAL, J. N. : *Histoire des Embaumements*, 2nd ed., Paris, 1841.

GARDINER, ALAN H. : Article ' Magic (Egyptian) ' in *Hastings' Encyclopaedia of Religion and Ethics*, vol. viii, Edinburgh, 1915, p. 266.

—— *The Tomb of Amenemhēt*, London, 1915.

—— *The Tomb of Huy*, London, 1926.

—— *Egyptian Grammar*, Oxford, 1927.

GARDNER, E. A. : Article ' Ceos ', *Encyclopaedia Britannica*, 11th ed., 1911, vol. v, p. 684.

GASTER, M. : *Proceedings of the Society of Biblical Archaeology*, vol. xxii, London, 1900, p. 340.

—— *Folk Lore*, vol. xxi, London, 1910, p. 376.

GAYET, A. : *Le Temple de Louxor*, Paris, 1894. [*Mémoires publiés par les Membres de la Mission Archéologique Française au Caire*, t. xv.]

GERARD[E], JOHN : *The Herball or Generall Historie of Plantes*, 3rd ed., London, 1636, [1st ed., 1597].

GLANVILLE, S. R. K. : *Journal of Egyptian Archaeology*, vol. xv, London, 1929, p. 2.

GLASSE, HANNAH : *The Art of Cookery Made Plain and Easy*, London, 1747. [Nearly fifty editions of this work have been issued ; the first, 1747, was published anonymously ' By a Lady '.]

GORDON, LADY EVELINE CAMILLA : *County Folk Lore : Suffolk*, London, 1893.

GORDON, E. M. : *Journal of the Asiatic Society of Bengal*, new ser., vol. i, Calcutta, 1905, p. 184.

GREGOR, WALTER : *Notes on the Folk Lore of North East Scotland*, London, 1881.

GRIFFITH, F. LL. : *Beni Hasan*, pt. iv, London, 1900.

—— *Stories of the High Priests of Memphis, the Sethon of Herodotus, and the Demotic Tales of Khamuas*, Oxford, 1900. 3 vols.

GRIFFITH, F. LL., and THOMPSON, H. : *The Demotic Magical Papyrus of London and Leiden*, London, 1904–9. 3 vols.

GRUBB, H. BARBROOKE : *Folk Lore*, vol. xxxv, London, 1924, p. 190.

GUBERNATIS, ANGELO DE : *Zoological Mythology*, London, 1879. 2 vols.

GUNN, BATTISCOME : *The Instruction of Ptahhotep*, 2nd ed., London, 1912.

—— *Journal of Egyptian Archaeology*, vol. iii, London, 1916, pp. 81–4.

GUTCH, MRS., and PEACOCK, M. : *County Folk Lore : Lincolnshire*, London, 1908.

HADDON, A. C. : *Reports of the Cambridge Anthropological Expedition to Torres Straits*, Cambridge, 1904, etc.

HAKLUYT, RICHARD : *The Principall Navigations, Voiages, and Discoveries of the English Nation*, London, 1598–1600. 3 vols.

HARRIS, RENDEL : *The Ascent of Olympus*, Manchester, 1917.

HARTLAND, E. S. : *County Folk Lore : Gloucestershire*, London, 1892.

HASTINGS' *Encyclopaedia of Religion and Ethics*, Edinburgh, 1908-26. 10 vols.

HARPOCRATION : *Lexicon.*

HENSLOW, G. : *Medical Works of the Fourteenth Century*, London, 1899.

HERODOTUS : *History.*

HESYCHIUS : *Lexicon.*

HILTON-PRICE, F. G. : *Transactions of the Society of Biblical Archaeology*, vol. ix, London, 1893, p. 344.

HILL, G. F. : *Journal of Hellenic Studies*, vol. xxxvi, London, 1916, p. 135.

HIPPOCRATES : *De Morbis.*

—— *De Morbis Mulierum.*

—— *De Ulceribus.*

HOHENHEIM, THEOPHRASTUS BOMBAST VON. *See* PARACELSUS.

HOLLIS, A. C. : *The Masai*, Oxford, 1905.

HOMER : *Iliad.*

—— *Odyssey.*

HOOTEN, E. A. : *Harvard African Studies*, vol. viii, Cambridge, Mass., 1925.

HORACE : *Carmen Saeculare.*

—— *Epodes.*

HORAPOLLO : *Hieroglyphica.*

HORT, ARTHUR : *Theophrastus' Enquiry into Plants*, London, 1916. 2 vols.

HORTUS SANITATIS : Moguntia, 1491. [Various subsequent editions.]

HOUSSAY, F. : *Revue Archéologique*, 3rd ser., t. xxvi, Paris, 1895, pp. 13 sq.

HOWALD, E., and SIGERIST, H. E. : *Corpus Medicorum Latinorum*, vol. iv, Leipsic, 1927.

HOWITT, A. W. : *Journal of the Anthropological Institute*, vol. xviii, London, 1889, p. 57.

—— *The Native Tribes of South-eastern Australia*, London, 1904.

HURRY, J. B. : *Imhotep*, 2nd ed., Oxford, 1928.

HUTTON, THOMAS : *Proceedings of the Zoological Society*, London, 1872, p. 693.

HYGINUS : *Fabulae.*

IBN AL-BEITHAR [ABU MOHAMMED ABDALLAH BEN AHMED IBN BEITHAR] : جامع المفردات , ed. Lucien Leclerc, *Traité des Simples par Ibn el Beithar*, in the *Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, vol. xxiii, Paris, 1877, pp. 1–476 ; vol. xxv, 1881, pp. 1–489 ; vol. xxvi, 1883, pp. 1–483.

ISAEUS : *De Pyrrhi Hereditia.*

JACOBS, J. : Article ' Kiss and Kissing ', *Jewish Encyclopaedia*, vol. viii, New York, 1925, p. 515.

JAMES, ROBERT : *Pharmacopoeia Universalis, or a New Universal Dispensatory*, 2nd ed., London, 1752.

JOHNSON, S.: *Camping Among the Cannibals*, London, 1883.

JOHNSTON, H. H.: *The Uganda Protectorate*, London, 1904. 2 vols.

JOSEPHUS, FLAVIUS: *Bella Judaica.*

—— *Contra Apionem.*

JOURNALS and PERIODICALS:

*Abhandlungen der Königlich Preussischen Akadamie der Wissenschaften*, Berlin.

*Aegyptus*, Milan.

*American Bureau of Ethnology, Annual Reports*, Washington.

*Ancient Egypt*, London.

*Annales du Service des Antiquités de l'Egypte*, Cairo.

*Anthropologie*, Paris.

*Bulletin de la Société Géographique*, Paris.

*Bulletins de la Société d'Anthropologie de Paris.*

*Classical Review*, London.

*Folk Lore*, London.

*Folk Lore Journal*, London.

*Folk Lore Record*, London.

*Hermes*, Berlin.

*Japan*, San Francisco.

*Journal of the Anthropological Institute*, London.

*Journal of the Asiatic Society of Bengal*, Calcutta.

*Journal of the British Archaeological Association*, London.

*Journal of Egyptian Archaeology*, London.

*Journal of Hellenic Studies*, London.

*Man*, London.

*Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, Paris.

*Palestine Exploration Fund, Quarterly Statements*, London.

*Philologus: Zeitschrift für das klassischen Alterthum*, Göttingen and Leipsic.

*Popular Science Monthly*, New York.

*Proceedings of the Royal Society of Medicine*, London.

*Proceedings of the Society of Biblical Archaeology*, London.

JOURNALS and PERIODICALS (*continued*):

*Proceedings of the Zoological Society*, London.

*Recueil de Travaux relatifs à la Philologie et l'Archéologie Egyptiennes et Assyriennes*, Paris.

*Revue Archéologique*, Paris.

*Revue Celtique*, Paris.

*Revue Égyptologique*, Paris.

*Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, Berlin.

*Transactions of the Ethnological Society*, London.

*Transactions of the Society of Biblical Archaeology*, London.

*Zeitschrift für ägyptische Sprache und Altertumskunde*, Leipsic.

*Zeitschrift für Ethnologie*, Berlin.

*Zeitschrift für Untersuchung der Nahrungs- und Genussmittel*, Berlin.

*Zoologist*, London.

JOWETT, BENJAMIN: *The Dialogues of Plato*, Oxford, 1892.

KEES, HERMANN: *Der Opfertanz des ägyptens Königs*, Leipsic, 1912.

KIRCHER, ATHANASIUS, *Lingua Aegyptiaca Restituta*, Rome, 1643.

KORAN, THE, ed. George Sale, new ed., London, n.d.

KRAPF, J. L.: *Travels, Researches and Missionary Labours during an Eighteen Years' Residence in Eastern Africa*, London, 1860.

LACTANTIUS PLACIDUS: *Commentatio in Statii Thebaida.*

LANDTMAN, GUNNAR: *The Kiwai Papuans of British New Guinea*, London, 1927.

LANE, E. W.: *Manners and Customs of the Modern Egyptians*, London, 1846. 2 vols.

LANG, ANDREW: *Custom and Myth*, London, 1885.

LEBOUR, G.: *Zoologist*, vol. xxiv, London, 1866, p. 523.

LECLERC, LUCIEN : *Kachef Er-Roumoûz (Révélation des Énigmes) d'Abd Er-Razzaq Ed-Djezairy ou Traité de Matière Médicale Arabe d'Abd Er-Razzaq l'Algérien*, Paris, 1874.

—— *See* IBN AL-BEITHAR.

LEGRAIN, GEORGES : *Annales du Service des Antiquités de l'Egypt*, vol. ii, Cairo, 1901, p. 272.

—— ibid., vol. xiv, 1915, pp. 17 sq.

—— *Statues et Statuettes des Rois et des Particuliers*, vol. i, Cairo, 1906. [*Catalogue générale du Musée du Caire.*]

LEMERY, NICOLAS : *Traité Universel des Drogues Simples*, 3rd ed., Paris, 1723.

—— See ARCANA CURIOSA.

LEPSIUS, C. R., *Denkmäler aus Ägypten und Äthiopen*, Berlin, 1849–56. 12 vols.

—— *Letters from Egypt, Ethiopia and Sinai*, London, 1853.

LESTRANGE, ROGER : *The Fables of Aesop*, 2nd ed., London, 1694.

LEVEEN, J. : *Proceedings of the Royal Society of Medicine*, vol. xxi, London, 1928, pp. 1397–1400.

LEXA, F. : *La Magie dans l'Égypte Antique*, Paris, 1925. 3 vols.

LIEBRECHT, F. : *Zeitschrift für Ethnologie*, Bd. v, Berlin, 1873, p. 99.

LINDBLOM, G. : *Man*, vol. xxviii, London, 1928, p. 93, § 69.

LIVINGSTONE, D. : *Missionary Travels and Researches in South Africa*, London, 1857.

LORET, VICTOR : *Annales du Service des Antiquités de l'Égypte*, vol. i, Cairo, 1900, pp. 48 sq., 215 sq.

LUCAS, A. : *Preservative Materials used by the Ancient Egyptians in Embalming*, Cairo, 1911.

LUPTON, THOMAS : *A Thousand Notable Things of Sundrie Sorts*, etc., London, 1627. [First ed., 1597.]

LYTE, HENRY. *See* DODOENS, R.

MACER FLORIDUS : *De Viribus Herbarum.*

McPherson, J. M. : *Primitive Beliefs in North-East Scotland*, London, 1929.

Mallery, Garrick : *Greeting by Gesture*, New York, 1891.

Mallet, D. : *Le Kasr el Agouz*, Cairo, 1909. [*Mémoires de l'Institut Français d'Archéologie Orientale*, t. xi.]

Man, E. Horace : *Journal of the Anthropological Institute*, vol. xii, London, 1883, p. 147.

—— ibid., vol. xvii, 1899, p. 368.

Manetho in Josephus : *Contra Apionem.*

Marcellus Empiricus : *De Medicamentis.*

Marco Polo : *The Travels of Marco Polo the Venetian*, London, n.d. [Everyman's Library.]

Mariette, Auguste : *Karnak*, Leipsic, 1875.

—— *Dendéreh : Description générale du Grand Temple*, Paris, 1870–4. 4 vols.

Mascall, Leonard : *The Countreyman's Jewell, or the Government of Cattell*, 2nd ed., London, 1627. [First ed., 1596.]

Maspero, Gaston : *Mémoire sur Quelques Papyrus du Louvre*, Paris, 1875. [*Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, t. xxiv.]

—— *Les Momies Royales de Déir el-Bahari*, Paris, 1889. [*Mémoires publiés par les Membres de la Mission Française Archéologique au Caire*, t. i.]

—— *Annales du Service des Antiquités de l'Egypte*, t. ii, Cairo, 1901, p. 281.

—— *Causeries d'Egypte* Paris, 1907.

—— *The Struggle of the Nations*, 2nd ed., London, 1910.

—— *Essais sur l'Art Egyptien*, Paris, 1912.

—— *Guide du Visiteur au Musée du Caire*, 4th ed., Cairo, 1915.

—— *The Popular Stories of Ancient Egypt*, London, 1915.

—— *Art in Egypt* [*Ars Una*], London, 1921.

—— *Études de Mythologie et d'Archéologie Égyptiennes*, Paris, 1893–1916. 8 vols.

Mayhew, A. L. and Skeat, W. W. : *A Concise Dictionary of Middle English*, Oxford, 1888.

Mela, Pomponius : *Chorographia.*

MILNE, J. G.: *Greek Inscriptions*, Cairo, 1905. [*Catalogue générale du Musée du Caire.*]

—— *Journal of Egyptian Archaeology*, vol. i, London, 1914, p. 96.

MÖLLER, GEORG: *Das Dekret des Amenophis des Sohnes des Hapu*, Berlin, 1910. [*Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften*, Bd. xlvii.]

MORET, ALEXANDRE: *Revue Egyptologique*, new ser., vol. i, Paris, 1919, p. 174.

MOVERS, F. C.: *Die Phönizier*, Bonn, 1846.

MOWAT, J. L. G.: *Alphita*, Oxford, 1887. [*Anecdota Oxoniensia*, vol. ii, pt. 2.]

—— *Sinonomia Batholomaei*, Oxford, 1882. [*Anecdota Oxoniensia*, vol. ii, pt. i.]

MULLACH, F. G. A.: *Fragmenta Philosophorum Graecorum*, Paris, 1860.

MÜLLER, K. O.: *Die Dorier*, 2nd ed., Breslau, 1844.

NAUCK, A.: *Tragicorum Graecorum Fragmenta*, 2nd ed., Leipsic, 1889.

NAVILLE, ÉDOUARD: *Deir el Bahari*, pt. iv, London, 1901; ibid., pt. v, 1906.

NETOLITZKY, FRITZ: *Zeitschrift für Untersuchung der Nahrungs- und Genussmittel*, Bd. xxi, Berlin, 1911, pp. 607 sq.; ibid., Bd. xxvi, 1913, pp. 425 sq.

NEWBERRY, PERCY E.: *Beni Hasan*, pt. i, London, 1893; ibid, pt. ii, 1894.

—— *The Life of Rekhmara*, London, 1900.

NEWTON, ALFRED: *A Dictionary of Birds*, London, 1896.

NICANDER OF COLOPHON: *Theriaca.*

NILSSON, MARTIN P.: *The Minoan-Mycenean Religion and its Survivals in Greek Religion*, Lund, 1927.

NYROP, C.: *The Kiss and its History*, London, 1901.

ORIBASIUS: *Euporista.*

OUSELEY, WILLIAM: *Travels in Various Countries in the East*, London, 1819–23. 3 vols.

OVID: *Fasti*.

—— *Metamorphoses*.

PAPYRI, Egyptian and Greek:

*Anastasi*, iii (Brit. Mus. 10246).

*Anastasi*, iv (Brit. Mus. 10249.)

*Ani* (Brit. Mus. 10470).

*Berlin*, 3027.

*Bibliothèque Nationale* (Greek).

*British Museum*, 10478.

*British Museum*, Greek 121.

*Coptic Medical* (Cairo).

*Ebers* (Leipsic).

*Hearst Medical* (California).

*Henûfer* (Brit. Mus. 9901).

*Leiden*, I, 384.

*London-Leiden Magical*.

*Petersburg*, 1115.

*Prisse* (Paris).

*Sallier*, IV (Brit. Mus. 10184).

*Westcar* (Berlin, 3033).

PARACELSUS [THEOPHRASTUS BOMBAST VON HOHENHEIM]: *Paracelsus his Dispensatory and Chirurgerie faithfully English'd by W. D.*, London, 1656.

PARÉ, AMBROISE: *Les Discours d'Ambroise Paré*, Paris, 1582.

—— *The Workes of that Famous Chirurgion Ambrose Parey*, London, 1634.

PARKINSON, JOHN: *Theatrum Botanicum: The Theater of Plantes, or an Herball of large extent*, London, 1640.

PENNANT, THOMAS: *British Zoology*, London, 1766.

PARTHEY, G.: *Zwei Zauberpapyri*, Berlin, 1886.

PAULUS AEGINETA: *Opera*.

PAULYS *Real-Encyclopädie der classischen Altertumswissenschaft.* Neue Bearbeitung von Georg Wissowa, Stuttgart, 1894, etc.

PAUSANIAS : *Description of Greece.*

PEET, T E. : *Journal of Egyptian Archaeology*, vol. xi, London, 1925, p. 37.

PERIODICALS. See JOURNALS and PERIODICALS.

PERRY, W. J. : *The Megalithic Culture of Indonesia*, Manchester, 1918.

PETRIE, W. M. FLINDERS : *Koptos*, London, 1896.

PETTIGREW, THOMAS J. : *Superstitions Connected with the History and Practice of Medicine and Surgery*, London, 1844.

PINDAR : *Olympian Odes.*

PISANDER : *Fragments*, ed. F. Dübner, Paris, 1840.

PLATO : *Theaetetus.*

PLINY : *Historia Naturalis.*

PLUTARCH : *Quaestiones Romanae.*

—— *Symposiacs.*

PRESCOTT, W. H. : *History of the Conquest of Peru*, 2nd ed., London, 1847.

PRISSE D'AVENNES : *Histoire de l'Art Égyptien*, Paris, 1878.

PSEUDO-APULEIUS : *Herbarius.*

PSEUDO-CALLISTHENES : *Alexander.*

RAMESEY [RAMSAY] : *De Venenis, or a Discourse of Poysons*, London, 1663.

REINACH, SALOMON : *L'Anthropologie*, t. x, Paris, 1899, pp. 661–70.

—— *Cultes, Mythes at Réligions*, t. i, Paris, 1905.

REICHENBACH, J. C. : *Bulletin de la Société Géographique*, 7th ser., vol. xi, Paris, 1890, p. 322.

RENOUF, P. LEPAGE : *Facsimile of the Papyrus of Ani*, London, 1890.

—— *The Life Work of Sir Peter Lepage Renouf*, Paris, 1902–4. 4 vols.

Renzi, Salvatore de : *Collectio Salernitana*, Naples, 1856. 4 vols.

Rhys, John : *Lectures on the Origin and Growth of Religion as Illustrated by Celtic Heathendom.* [The Hibbert Lectures, 1886], 2nd ed., London, 1892.

Rivers, W. H. R. : *History and Ethnology*, London, 1922.

—— *History of Melanesian Society*, Cambridge, 1914. 2 vols.

Rogers, C. : *Social Life in Scotland*, Edinburgh, 1884–6. 3 vols.

Rose, H. J. : *Handbook of Greek Mythology*, London, 1928.

Roth, H. Ling : *Journal of the Anthropological Institute*, vol. xix, London, 1890, pp. 164 sq.

Roth, W. W. : *Catalogue of Greek Coins in the British Museum : Troas, Æolis and Lesbos*, London, 1894.

Rougé, Emanuel de : *Inscriptions Hiéroglyphiques copiées en Egypte*, Paris, 1879.

Russell, R. V. : *Tribes and Castes of the Central Provinces of India*, 1916. 4 vols.

St. John, H. C. : *Journal of the Anthropological Institute*, vol. ii, London, 1873, p. 251.

Sale, George : *The Koran*, new ed., London, n.d.

Salmon, William : *Synopsis Medicinae*, 3rd ed., London, 1695.

Schmidt, M. : *Hesychii Alexandrini Lexicon*, Jena, 1858. 2 vols.

Schneider, J. O. : *Nicandri Colophontis Theriaca et Alexipharmaca*, Leipsic, 1856.

Schoemann, G. F. : *Griechische Alterthümer*, 4th ed., Berlin, 1897–1902.

Scholiast on :

Apollonius Rhodius, *Argonautica.*

Aristophanes, *Acharnians.*

—— *Birds.*

—— *Lysistrata.*

SCHOLIAST on :

Aristophanes, *Peace.*

Plato, *Theaetetus.*

SEAGER, H. W. : *Natural History in Shakespeare's Time*, London, 1896.

SELER, E. : *Zeitschrift für Ethnologie*, Bd. xxxvi, Berlin, 1894, pp. 577–85.

SENECA : *Medea.*

SERVIUS on VIRGIL, *Aeneid.*

SETHE, KURT : *Amenophis der Sohn des Hapu.* [*Aegyptiaca : Festschrift für Georg Ebers*, Leipsic, 1897, pp. 107–16.]

—— *Die altägyptische Pyramidentexte*, Leipsic, 1908–10. 2 vols.

—— Article ' Heroes and Hero-gods (Egyptian) ' in *Hastings' Encyclopaedia of Religion and Ethics*, vol. vi, p. 651.

SEYFFERT, OSCAR : *Dictionary of Classical Antiquities*, ed. H. Nettleship and J. E. Sandys, London, 1902.

SHAKESPEARE, J. : *Folk Lore*, vol. xx, London, 1909, p. 389 ; ibid., xxiii, 1912, p. 268.

SIBREE, J. : *Folk Lore Record*, vol. ii, London, 1879, p. 22.

SILVESTRE DE SACY, ANTOINE ISAAC, Baron : *Relation de l'Égypte d'Abd Al-Latif*, Paris, 1810.

SIMPSON, W. HILTON : *Folk Lore*, vol. xxvi, London, 1915, p. 249.

SMITH, G. ELLIOT : *The Evolution of the Dragon*, Manchester, 1919.

—— *The Ancient Egyptians*, 2nd ed., London, 1923.

—— *Conversion in Science*, London, 1928.

SMITH, WILLIAM and OTHERS : *Dictionary of Greek and Roman Antiquities*, 3rd ed., London, 1890. 2 vols.

SMITH, W. ROBERTSON : *Lectures on the Religion of the Semites*, 3rd ed., London, 1927.

SNOW, W. P. : *Transactions of the Ethnological Society*, new ser., vol. i, London, 1860, p. 263.

SOPHOCLES : *Electra.*

SPEKE, J. H. : *Journal of Discovery of the Source of the Nile*, London, 1863.

SPELEERS, L.: *Les Textes des Pyramides Égyptiennes*, t. ii (vocabulaire), Brussels, 1924.

SPENCE, LEWIS.: Article 'Popol Vuh', in *Hastings' Encyclopaedia of Religion and Ethics*, vol. x, Edinburgh, 1918, p. 115.

SPENCER, W. BALDWIN: *Wanderings in Wild Australia*, London, 1928. 2 vols.

—— and GILLEN, F. J.: *The Arunta*, London, 1927. 2 vols.

SPENCER, HERBERT: *Seven Essays Selected from the Works of Herbert Spencer*, London, 1907.

SPIEGELBERG, WILHELM: *Arbeiter und Arbeiterbewegung in Pharaonreich*, Hanover, 1892.

—— *Eine neue Sammlung von Liebeslieden.* [*Aegyptiaca: Festschrift für Georg Ebers*, Leipsic, 1897.]

—— *Recueil de Travaux relatifs à la Philologie et à l'Archéologie Egyptiennes et Asyriennes*, t. xxiii, Paris, 1901, p. 98.

—— *Zeitschrift für ägyptische Sprache*, Bd. xliii, Leipsic, 1906, p. 91.

—— ibid., Bd. l, 1912, p. 47.

—— *Mythus vom Sonnenauge*, Strasburg, 1917.

STEINSCHNEIDER, M.: *Donnolo, Pharmakologische Fragmente aus dem X Jahrhundert nebst Beiträgen zur Literatur der Salernitaner, haupsächlich nach handschriftlichen hebräischen Quellen*, Berlin, 1867.

STEPHANUS, H. [HENRI ESTIENNE]: *Thesaurus Linguae Graecae*, Paris, 1831–56.

STOKES, WHITTLEY: *Revue Celtique*, t. xiii, Paris, 1892, pp. 426 sq.

STRABO: *Geographica.*

SUIDAS: *Lexicon.*

SWAINSON, CHARLES: *Folk Lore and Provincial Names of British Birds*, London, 1886.

TERENCE: *Andria.*

TERTULLIAN: *Ad Nationes.*

THEOPHRASTUS: *Historia Plantarum.*

THOMAS, N. W. : *Folk Lore*, vol. xi, London, 1900, p. 255.

THOMPSON, C. J. S. : *The Quacks of Old London*, London, 1928.

THOMPSON, HERBERT : *Proceedings of the Society of Biblical Archaeology*, vol. xxxv, London, 1913, p. 96.

THOMPSON, R. CAMPBELL : *Semitic Magic*, London, 1908.

—— *Proceedings of the Royal Society of Medicine*, vol. xix, London, 1926, p. 55.

—— *The Epic of Gilgamish*, London, 1928.

THORNDIKE, LYNN : *History of Magic and Experimental Science*, London, 1923. 2 vols.

THORPE, B. : *Northern Mythology*, London, 1851. 3 vols.

THURSTON, EDGAR : *Omens and Superstitions in Southern India*, London, 1912.

THURSTON, H. : Article ' Kiss ' in the *Catholic Encyclopaedia*, New York, 1910, vol. viii, p. 663.

TOPSELL, EDWARD : *Historie of Foure Footed Beastes*, London, 1607.

—— *Historie of Serpents, or the Seconde Book of Living Creatures*, London, 1608.

TREGEAR, E. : *Journal of the Anthropological Institute*, vol. xix, London, 1890, p. 113.

TRISTRAM, H. B. : *Natural History of the Bible*, 2nd ed., London, 1868.

TÜMPEL, K. : *Philologus*, Bd. li, Göttingen and Leipsic, 1892, p. 385.

TURNER, GEORGE : *Samoa a Hundred Years Ago and Long Before*, London, 1884.

TURNER, WILLIAM : *The First and Seconde Partes of the Herbal of William Turner . . . with the Thirde Parte lately gathered*, Cologne, 1568.

TYLOR, EDWARD B. : *Researches into the Early History of Mankind and the Development of Civilization*, London, 1865.

—— *Primitive Culture : Researches into the Development of Mythology, Philosophy, Religion, Langauge, Art and Custom*, 2nd ed., London, 1873. 2 vols.

—— Article ' Salutations,' reprinted from the 9th ed., in the *Encyclopaedia Britannica*, 11th ed., vol. xxiv, p. 94.

TZETZES, J.: *Scholia on Lycophron.*

VALERIUS FLACCUS: *Argonautica.*

VIRGIL: *Aeneid.*

—— *Georgics.*

WALKER, H. W.: *Wanderings Among South Sea Savages*, London, 1909.

WEEKS, JOHN H.: *Folk Lore*, vol. xix, London, 1908, p. 432.

WEIGALL, A. E. P.: *Guide to the Antiquities of Upper Egypt*, 2nd ed., London, 1913.

WESSELY, C.: *Griechische Zauberpapyri von Paris and London*, Vienna, 1888.

—— *Neue Griechische Zauberpapyrus*, Vienna, 1893.

WESTROPP, T. J.: *Folk Lore*, vol. xxii, London, 1911, p. 452.

WHIBLEY, LEONARD: *Companion to Greek Studies*, 3rd ed., Cambridge, 1916.

WHISTON, W., *The Works of Flavius Josephus*, London, 1825. 2 vols.

WILAMOWITZ-MOLLENDORF, U. VON: *Hermes*, Bd. xxxviii, Berlin, 1903, p. 575.

WILCKEN, ULRIC: *Aegyptiaca: Festschrift für Georg Ebers*, Leipsic, 1897, pp. 142 sq.

—— *Hermes*, Bd. xl, Berlin, 1905, p. 544.

WILKINSON, J. GARDNER: *Manners and Customs of the Ancient Egyptians*, London, 1837. 3 vols.

WILLIAMS, T.: *Fiji and the Fijians*, 2nd ed., London, 1860.

WILLSFORD, THOMAS: *Nature's Secrets*, London, 1658.

WILSON, JAMES: *Missionary Voyage to the Pacific Ocean*, London, 1799.

WLISLOCKI, H. VON: *Volksglaube und Volksbrauch der Siebenbürger Sachsen*, Berlin, 1893.

WOODWARD, S. P.: *Manual of the Mollusca*, 4th ed., London, 1890.

WRIGHT, E. M.: *Rustic Speech and Folk Lore*, London, 1913.

WUTTKE, R.: *Sächsische Volkskunde*, 2nd ed., Dresden, 1901.

# INDEX


Abd ar-Razzaq :
  on bats, 31
  on mice, 105
Aelian, 9, 13, 114, 135, 138, 139
Aello, a harpy, 18, 20
Aeneas and the harpies, 20
Aeschylus, lost tragedy *Tereus*, 137
Ai, Egyptian king, 63, 67
Ainu of Japan, salutations of, 94 sq.
Akhenaten, Egyptian king, 67
Albertus Magnus, 47
Alexander the Great, 22
Algonquin Indians, 32
Alleyne, James, on mummy, 172
Amenophis II, Egyptian king, 66
Amenophis III, Egyptian king, 56, 57, 59, 62, 64, 65, 66, 67, 68
Amenophis IV, Egyptian king, 67
Amenophis the son of Hapu :
  decree of, 68 sq.
  life of, 49 sq.
  longevity of, 60
  sayings of, 75
  statues of, 56 sq., 82
  titles of, 58, 59
Amphidromia :
  a Greek rite, 1 sq.
  defined by Greek writers, 2, 3, 13
  description of, 2 sq.
  Dr. Reinach's views on, 4 sq.
  purpose of, 6 sq.
  revised interpretation of, 13 sq.
Anglo-Saxon medical books, 150
Aphrodite, molluscs associated with, 9
Apollonius Rhodius :
  on the harpies, 21
  on the story of Phineus, 19, 20
Apollodorus, 19
Apollo Smintheus, 110 sq.
Apuleius Barbarus. *See* Pseudo-Apuleius
Ares, father of Tereus, 135
Argonauts, 19
Aristolochia. *See* Birthwort
Aristophanes :
  on Amphidromia, 1
  on cephalopods as food, 9
  on the hoopoe, 139
  on the Tereus-myth, 137
Aristotle :
  on bats, 29, 43
  on the hoopoe, 139
  on reproduction of mice, 123
Ascham, Anthony, 155, 161
Askham. *See* Ascham
Asklepios, 74, 75
Asphalt. *See* Bitumen
Asphaltites, Lake, 162
Assa, Egyptian king, 53
Assyrians :
  charms used by, for children, 14
  story of, by Herodotus, 111
Athenaeus, on Amphidromia, 3
Athletes, stripped for running, 5 sq.
Athribis, Egyptian city, 55
Avicenna, 166

Babylonians :
  charms of, for children, 14
  mice eaten by, 116
Bartholomaeus Anglicus, 124, 141

Bats :
as souls of the dead, 37, 41
folk-lore of, 29 sq.
folk-rhymes relating to, 33, 42
known to the ancients, 23, 27 sq.
mythology of, 39 sq.
Syrian beliefs as to, 31, 32
therapeutic use of, 30 sq.
*See also* Flying-foxes
Beltane fires, 10
Berlin Papyrus No. 3027, 14, 105
Bestiaries, 124, 139
Bias of Priene, 76
Birthwort :
confusion of, with other herbs, 160
history of, 143
therapeutic uses of, 144 sq.
Bishop Hatto, legend of, 122
Bitumen :
confused with resin, 165
natural, 162 sq.
not used in mummies, 165
*Book of the Dead*, 86, 116
Boreas, sons of, 20
Breasted, Prof. J. H., on the Decree of Amenophis, 69
Breath of life, 98
Brookes, Dr. Robert, 159
Browne, Sir Thomas, 1, 162, 173

Caithness, cat-clan of, 118
Calais, son of Boreas, 20
Canary Islands, mummies from, 171
Candelifera, 16
Cassius Felix, 147
Cat-clan of Caithness, 118
Celsus :
on birthwort, 145
on bitumen, 164
Ceos, 114
Cephalopods :
emblems of Aphrodite, 9
given to children, 7–11
Cephalopods (*contd.*) :
habits of, 9
symbolism of, 9
swastika possibly derived from, 9
voracity of, 9
Chaerophon, called 'the bat', 28
Changelings, 13 sq.
exhibited in London, 16 n., 7
Chaucer, quotation from, 154
Chilon of Sparta, 76
Children, protective ceremonies for, 13 sq.
*See also* Amphidromia
Chinese beliefs as to bats, 40
Choereatae, 118
Cicero :
on birthwort, 145
on statue of Hercules, 82
Cleobulus of Lindus, 76
Colossi of Memnon, 64
Coptic medicine :
bats in, 36
birthwort in, 149
hoopoe in, 129
mice in, 106
Couvade, 6
Crawfurd, Dr. R., on mice and plague, 115
Crawley, Ernest, on significance of kissing, 89, 90
Croll, Oswald (Crollius), 171
Culpeper, Nicholas :
on birthwort, 157
on mummy, 172
on therapeutic use of mice, 107
Cuttlefish. *See* Cephalopods
Cynopterus marginatus, 25

Danish belief in changelings, 15
Darab, Persia, 164
Davis, Theodore, 63
Day, Francis, on Indian bats, 24
Dead Sea, bitumen of, 162, 163, 164, 166

Deir el Bahari, temple of, 73, 74
Deir el Medineh, temple of, 63, 65, 72
Diodorus Siculus :
on bitumen, 163
on generation of mice, 102
Dioscorides :
on asphaltos, 164
on birthwort, 145
on mice, 105
Dobson, Dr. G. E., on Indian bats, 24 sq.
Dodoens, Rembert, 156
Donnolo, Shabbethai, 149
Druce, George C., on Bestiaries, 124, 139
Durham, Miss Edith, 99

Easter fires, 10
Ebers Papyrus, 33, 35, 104
Egyptians :
charms of, for children, 14
methods of salutations of, 81 sq.
Electra, mother of the Harpies, 20
Elephants, antipathy of, to mice, 124
Emballonuridae, 35
Embracing, 86, 92
Ephippus, on Amphidromia, 3
Erinyes, 19
Erman, Prof. Adolf, 69, 73

Farnell, Dr. L. R., on Apollo Smintheus, 114
Faunus, 11
Fire-ceremonies, 10
Flying-foxes :
Aristotle on, 29
magically used by Papuans, 40
of Australia, 24, 26
of Egypt, 29
of India, 23 sq.
of Indonesia, 24
of Java, 23
Flying-foxes (*contd.*) :
of Syria, 43
voracity of, 25, 26, 27
Fontaine, Guy de la, 167 sq.
Frazer, Sir James :
on cephalopods given to children, 8
on fire-ceremonies, 16
on the Lupercalia, 11, 12

Gerard, John :
on birthwort, 157
on monkshood, 125
German customs for children, 15
Gilgamish, epic of, 34
Glasse, Hannah, 172
*Grant Herbier*, 155
*Grete Herball, The*, 155
Griffith, Prof. F. Ll., 71
Guanche mummies, 171
Guarayo Indians, 41

Hand-shaking, 92
Hapu, father of Amenophis, 56
Haremhab, Egyptian king, 57, 63, 64, 67
Harpies, nature and legends of, 18 sq.
Harpocration on Amphidromia, 2
Harris, Dr. Rendel, on mouse-eating, 108, 111
Hatshepsowet, Egyptian queen, 65
Hatto, legend of, 122
Hearst Medical Papyrus, 105
Hekt, Egyptian goddess, 112
Henslow, Prof. G., 153
Hercules, 11, 82
Herodotus :
on bats, 27
on Sethon, 55, 111
Hesiod, on the Harpies, 19
Hesychius, on Amphidromia, 2
Hildegard of Bingen, 107
Hill, Dr. G. F., 115

Hippocrates, on birthwort, 144, 155
Hohenheim, Thoephrastus von. *See* Paracelsus
Homer, on the Harpies, 19
Hoopoe :
  appearance and habits of, 126 sq.
  etymology of, 130
  legends of, 130
  metamorphosis of, 137
  therapeutic and magical uses of, 129 sq.
Horapollo, 30, 36, 37, 141
Horus Khentekhthai, 56, 63
Horus of Letopolis, 112
Houssay, Dr. F., on symbolism of cephalopods, 9
Hrihor, Egyptian king, 68, 69
Hyatae, 118

Iatu, mother of Amenophis, 56, 59
Ibn al-Beithar :
  on bats, 30, 31
  on birthwort, 151
  on bitumen, 166
  on mice, 106
  on the hoopoe, 131
Imhotep, Egyptian sage, 54, 71–3
Incas of Peru, 97

James, Dr. Robert :
  on birthwort, 159
  on hoopoe, 142
  on mummy, 172
  powder of, 142 n. 2
Japanese beliefs as to bats, 41
Jew's bitumen, 166
Josephus, 77
Jowett, Dr. Benjamin, 13
Juno Lucina, 16

Karnak, temple of, 56, 57, 61, 67, 71
Kasr el Agouz, temple of, 72
Khamwēse, Egyptian prince, 54, 75
Khons, Egyptian god, 69
Kircher, Athanasius, 171
Kiss :
  a ceremonial act, 84 sq.
  origin of, 89 sq.
Kiwai Papuans, 40
Knots, magical, 120
Koran, the, 102, 130
Kulakli, Asia Minor, 114

Lane, E. W., on Moslem salutations, 92
Legrain, Georges, 57, 61, 67
Leiden Papyrus, 129
Lemery, Nicholas :
  on bats, 47
  on birthwort, 159
  on hoopoe, 142
  on mummy, 171
Lenten fires, 10
London-Leiden Magical Papyrus, 36, 128, 129
Longevity of 110 years, 60, 70
Lucina, Roman goddess, 16
Lugaid, Celtic king, 116 sq.
Lupercalia, Roman festival, 11
Lyte, Henry, 156

Macer Floridus, 151
Mackenzie, Donald A., 118, 119
McPherson, J. M., on changelings, 14, 15
Malmesbury, William of, 122
Manetho, 77 sq.
Marcellus Empiricus, 147
Marco Polo, 23
Maspero, Sir Gaston :
  on Amenophis, son of Hapu, 49, 66, 76, 78
  on the story of the Potter, 78
  on the story of Wenamen, 69
  on votive mice, 118
Maya Codices, 39

Mayerne, Sir Theodore de, 47
Medinet Habu, temple of, 72
Megaderma, 28, 29
Mela, Pomponius, on generation of animals, 102
Memnon, Colossi of, 64
Mena, Egyptian king, 103
Mice :
  eating of, 101 sq.
  folk-lore of, 110 sq.
  stories of the origin of, 101
  tabooed animals, 115
  therapeutic use of, 101 sq.
  votive figures of, 112, 118
Midsummer fires, 10
Milk-teeth and mice, 119 sq.
Milne, J. G., on graffiti of Amenophis, 74
Möller, Dr. Georg, on decree of Amenophis, 68
Mordvin bat-legend, 43
Moret, Dr. Alexander, 63
Mumia. *See* Mummy
Mummy :
  as a drug, 162 sq.
  etymology of, 164
  supply of, 168
Mummy-Mountain, 164

Naga ed-Dêr, Egypt, 103
Name-day of children, 3, 4, 14
Nicander of Colophon, 145, 159
Nilsson, Martin P., 113
Nose-rubbing as a salutation, 81 sq., 87

Octopus. *See* Cephalopods
Ocypete, a harpy, 18, 20
Omphale, 11
Oneatae, 118
Orkney Islands, boar-clan of, 118
Ousley, Sir William, 165
Ovid, on the Lupercalia, 11 sq.

Paapis, 77
Pan, 11
Pandareus, daughters of, 18
Paracelsus :
  on birthwort, 154
  on mice in medicine, 107
  on mummy, 170
Paré, Ambroise, 167, 169, 170
Parkinson, John :
  on birthwort, 157
  on mummy, 170
Paulus Aegineta :
  on birthwort, 148
  on bitumen, 164
Pennant, Thomas, on changelings, 14
Periander of Corinth, 76
Peter of Abano, 153
Pettigrew, T. J., on Paracelsus, 107
Philistines and mice, 118
Philomela, legend of, 136
Phineus, myth of, 19 sq.
Pipistrelle-bat, 28
Pittacus of Mitylene, 76
Plato, on Amphidromia, 12, 13
Pliny :
  on bats, 29
  on birthwort, 146
  on bitumen, 162
  on generation of mice, 101
  on legends of mice, 123
  on mice as medicine, 105
Plutarch, on conception of mice, 103
Podarge, a harpy, 19
Popol Vuh, 39
Prisse Papyrus, 53
Procne, story of, 136
Pseudo-Apuleius, Herbal of, 150
Pseudo-Callisthenes, 23
Ptah, temple of, 71
Ptahhotp, Egyptian sage, 53, 75
Pteropodidae, 23
Pteropus conspicillatus, 26
Pteropus medius, 23, 24

Ptolemy IV, 72
Ptolemy VI, 71
Ptolemy IX, 72, 73, 79
Ptolemy XI, 72, 76

Ramesey. *See* Ramsay
Ramesses II, 54, 66, 67, 75
Ramesses III, 52
Ramesses IX, 52
Ramsay, William, on birthwort, 158
Reinach, Dr. Salomon, on Amphidromia, 4 sq.
Reisner, Dr. George, 103
Remus, 12
Resin confused with bitumen, 165
Rivers, Dr. W. H. R., 91
Romulus, 12
Rose, Prof. H. J. :
  on Apollo, 113
  on the harpies, 22
Roth, H. Ling, on salutations, 92 sq.
Running, ceremonial, 6, 7, 10, 11

Saglio, Dr. E., on Amphidromia, 5
St. Gertrude, mice sacred to, 121
Salerno, Medical School of, 33
Salmon, Dr. William, 158
Salt, origin of mice by, 103
Salutations :
  Egyptian, 81 sq.
  in various countries, 87 sq.
  originated in ceremonial rites, 98
Scamander, River, 113
Schoemann, Dr. G. F., on Amphidromia, 4
Scholiasts on Amphidromia, 3, 13
Scottish belief in changelings, 14 sq.
Sed-festival, Egyptian, 62, 66
Sethon, Egyptian priest, 55
Sethos I, Egyptian king, 63, 67
Seven Wise Men, the, 76
Shakespeare, quotations from, 173
Shirley, James, quotations from, 173
Smintheus, 110 sq.
Sminthium, 113
Smith, Prof. G. Elliot :
  on ' natural laws ', 90
  on swastika symbol, 9 n. 4
  on therapeutic use of mice, 104
Snow, W. P. :
  on salutations in Tierra del Fuego, 92
Soleb, temple of, 62
Solon of Athens, 76
Soul in form of mouse, 120 sq.
Sphinxes, 62
Spiegelberg, Dr. W. :
  on Apollo Smintheus, 111
  on an altar of Amenophis, 74
Springwort, magic herb, 138 sq.
Statues :
  animation of, 65
  of Amenophis, 56–8
Step-Pyramid, 54
Storm-winds, 18, 19
Strabo :
  on asphaltos, 164
  on mice and plague, 115
Strikes in ancient Egypt, 52
Strophades Islands, 20
Suidas, on Amphidromia, 2
Swallow-stones, 140
Swastika symbol, 9, 10

Teeth of children given to mice, 119 sq.
Tereus :
  legend of, 135 sq.
  tomb of, 136
Thales of Miletus, 74

Thaumas, father of the harpies, 19
Theodosius I, 147
Theophrastus, 144
Thoth, temple of, 72
Thrace, Tereus, king of, 135
Topsell, Edward, 161
Tristram, Canon H. B., 43
Troy, legend of Apollo at, 113
Tümpel, Dr. K., on symbols of Aphrodite, 9
Turner, William, on birthwort, 157
Tutankhamen, 67
Tuthmosis III, 55, 72
Tuthmosis IV, 66

Uncovering as a salutation, 97
Unlucky days, Egyptian, 116

Vespertilionidae, 23
Virgil :
  on bitumen, 163
  on hand-shaking, 93
  on the harpies, 20

Water, origin of life in, 102
Watson, Prof. W. J., 118
Weeping for joy, 95
Wenamen, story of, 69
Whibley, Dr. Leonard, on Amphidromia, 4
Wilamowitz-Mollendorf, Dr., on Apollo, 113
Wilcken, Dr. Ulric, on the sayings of Amenophis, 76
William of Malmesbury, 122

Zephyrus, 19
Zetes, son of Boreas, 20
Zeuxippe, wife of Pandion, 135
Zoser, Egyptian king, 54, 71

PRINTED BY
JARROLD AND SONS LTD
NORWICH